DOCUMENT RESUME

ED 326 368 RC 017 921

AUTHOR	Milkove, Daniel L.; Sullivan, Patrick J.
TITLE	Deregulation and the Structure of Rural Financial Markets. Rural Development Research Report Number 75.
INSTITUTION	Economic Research Service (DOA), Washington, DC. Agriculture and Rural Economy Div.
PUB DATE	Feb 90
NOTE	56p.
AVAILABLE FROM	ERS-NASS, P.O. Box 1608, Rockville, MD 20849-1608 ($8.00).
PUB TYPE	Reports - Research/Technical (143)
EDRS PRICE	MF01/PC03 Plus Postage.
DESCRIPTORS	*Banking; Educational Finance; Federal Legislation; Financial Needs; Financial Policy; *Financial Services; Rural Areas; *Rural Development; *Rural Economics; State Legislation
IDENTIFIERS	*Deregulation

ABSTRACT

Changes in rural financial markets as affected by bank deregulation have a potential impact on rural educational finance, specifically, financial aid programs for students and schools. Banking legislation and regulation changes have aimed to strengthen the industry and to provide consumers with more services and more choices among providers. Ownership of many banks is changing hands as holding companies acquire additional banks both within and beyond their home states. Most banks that disappear become branches of other banks, so that financial services within most communities are maintained. By incorporating branch offices and by identifying holding company to the services and lending experience associated with large banks. A growing number of rural counties are served by a combination of local and urban-based banking firms. These communities may receive the benefits of wider services from large banks and greater local knowledge available from locally owned community banks. On the other hand, some analysts fear that rural communities will be stripped of locally owned banks and left to the whims of large banking firms. This report examines the structure of rural bank markets including sources of rural credit, individual state patterns of bank branching, and holding company characteristics. It attempts to determine how rural bank structure has changed during the 1980s and discusses bank failures and mergers, the growth of holding companies and interstate banking activities, and probable scenarios for the future of the rural banking system. Appendices include a summary of banking legislation, an explanation of data sources, and concepts, and 11 tables of data. (ALL)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

United States Department of Agriculture

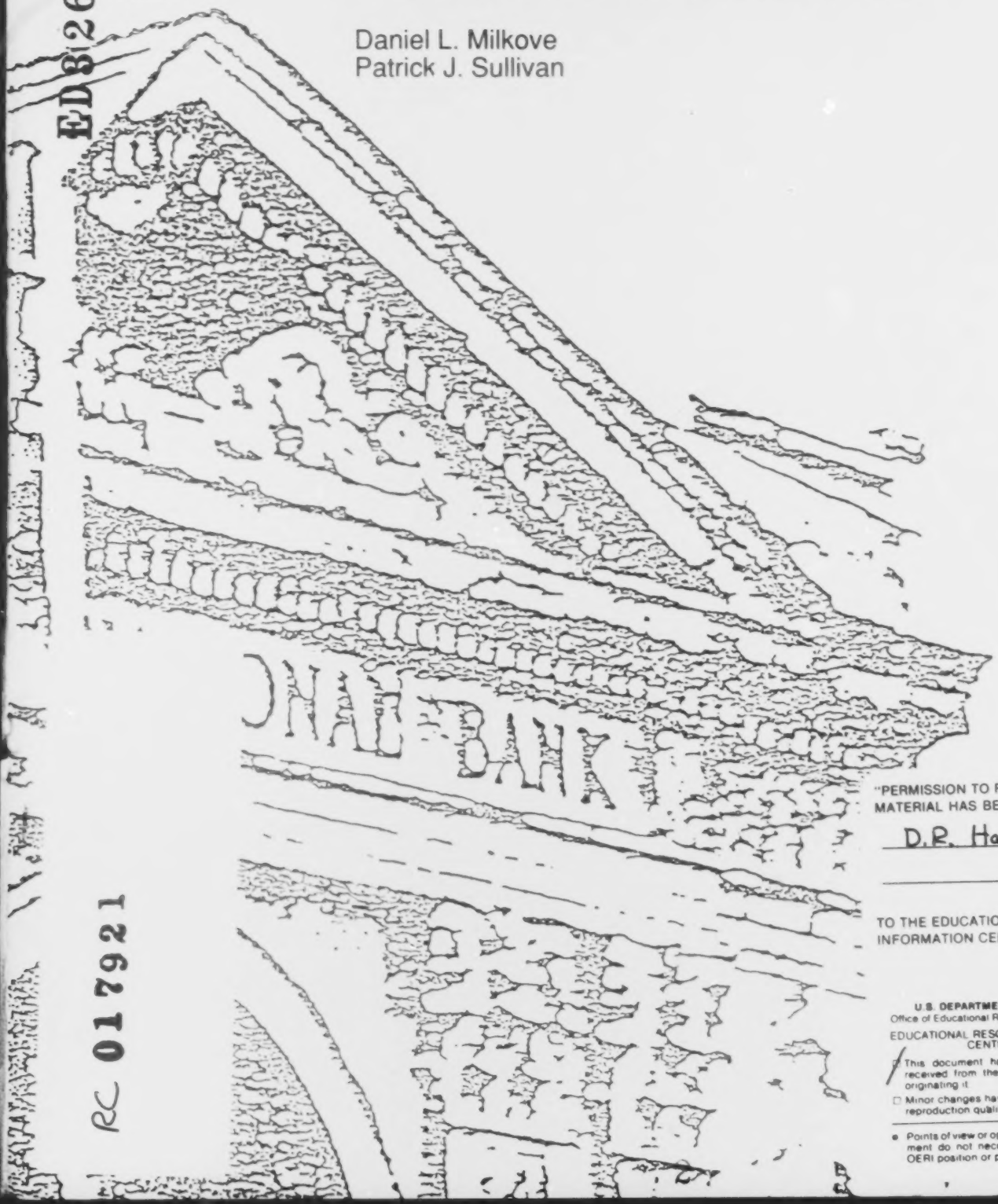
Economic Research Service

Rural Development Research Report Number 75

ED 263668

Deregulation and the Structure of Rural Financial Markets

Daniel L. Milkove
Patrick J. Sullivan



RC 017921

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

D.R. Hauge

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☒ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy

It's Easy To Order Another Copy!

Just dial 1-800-999-6779. Toll free (in the United States and Canada). All other areas please dial 301-725-7937.

Ask for *Deregulation and the Structure of Rural Financial Markets* (RDRR-75).

The cost is $8.00 per copy. For non-U.S. addresses (including Canada), add 25 percent . Charge your purchase to your VISA or MasterCard, or we can bill you. Or send a check or purchase order (made payable to ERS-NASS) to:

ERS-NASS
P.O. Box 1608
Rockville, MD 20849-1608.

We'll fill your order by first-class mail.

Deregulation and the Structure of Rural Financial Markets. By Daniel L. Milkove and Patrick J. Sullivan, Agriculture and Rural Economy Division, Economic Research Service, U.S. Department of Agriculture. Rural Development Research Report No. 75.

Abstract

Rapid geographic deregulation of the financial services industry will probably continue in response to technological advances and legislative actions at the State and possibly Federal levels. The ultimate effect of bank deregulation on rural financial markets remains uncertain. Some analysts fear that rural areas will be stripped of their locally owned community banks and left to the whims of large regional and national banking firms. Others argue that geographic deregulation will benefit rural borrowers by increasing the range of financial services provided by banks operating in rural communities.

Keywords: Commercial banks, rural banks, bank deregulation.

Acknowledgments

We received useful comments from Douglas Duncan, Stephen Hiemstra, and James Mikesell of USDA's Economic Research Service. In addition, Lindsay Mann provided extensive editorial assistance while preparing this manuscript for publication.

Note

Use of firm names in this report is for identification only and does not constitute endorsement by the U.S. Department of Agriculture.

1301 New York Avenue, NW.
Washington, DC 20005-4788

February 1990

Contents

	Page
Summary	
Fewer Rural Banks Not Affecting Financial Services	2
Structure of Rural Banking	
Goals of Deregulation	4
Importance of Local Ownership	5
Sources of Rural Credit	6
Structure of the Commercial Banking System	8
Bank Branching Patterns by State	10
Bank Holding Company Characteristics by State	12
Joint Role of State and Federal Regulations	14
Interstate Banking Is Expanding	16
Trends in Bank Structure	
Recent Trends Suggest Future Possibilities	18
Changes in the Number of Banks	19
Bank Failures	22
Bank Mergers and Acquisitions	24
The Growth of Holding Companies	25
Interstate Banking Activities	26
Rural Banks and Bank Markets During the 1980's	
Current Structure of Banking in Rural America	28
The Changing Structure of Rural Banks and Bank Markets	30
Changing Rural Bank Services	32
Future Trends in Rural Banking	
Rural Banking in a Deregulated Environment	34
References	36
Appendix A: Federal and State Banking Legislation	37
Appendix B: Data Sources and Concepts	39
Appendix Tables	40

Fewer Rural Banks Not Affecting Financial Services

Recent changes in banking legislation and regulation have aimed to strengthen the industry and to provide consumers with more services and more choices among providers.

Geographic deregulation of the financial services industry will probably continue its rapid pace in response to technological advances and legislative actions at the State and possibly Federal levels. How bank deregulation will affect rural financial markets is uncertain, but some analysts fear that locally owned rural banks will disappear, leaving rural communities at the mercy of large, indifferent regional and national banking firms. Others predict that geographic deregulation will expand the range of financial services provided by banks operating in rural communities.

This report examines the structure of rural bank markets, determines how this structure has changed during the 1980's, and discusses probable scenarios for the future of the rural banking system. The authors have focused on the banking systems of those States that have recently expanded bank branching privileges, permitted interstate banking, or both. The number of banks is declining, as losses due to mergers and failures have surpassed the rate at which new banks are chartered. Ownership of many other banks is also changing hands as holding companies acquire additional banks both within and beyond their home States. But, most banks that disappear become branches of other banks, so that financial services within most communities are maintained. When absorptions result from bank holding companies taking advantage of new State branching regulations by converting their bank affiliates to branch offices, bank customers often do not notice any change. For rural communities, holding company acquisitions may amount to little more than the exchange of one outside owner for another.

The small size of most banks headquartered in rural counties suggests that the array of financial services available to rural residents and businesses may be somewhat limited. But examining rural banking markets more closely, both by incorporating branch offices and by identifying holding company linkages between banks, indicates that a sizable number of rural counties have access to services and lending experience associated with large banks. Some rural banks are affiliates of large, multibank holding companies. And, in States with liberal branching laws, large urban banks may have branches in rural communities. A growing number of rural counties are served by a combination of local and urban-based banking firms. These communities may receive the benefits of both wider services from large banks and greater local knowledge available from locally owned community banks.

Structure of the Report

Question:

Will bank deregulation cause disappearance of locally owned rural banks and increased reliance on regional and national banks?

Approach:

1. Examine structure of rural bank markets
2. Note changes during 1980's
3. Discuss likely scenarios for the future

Main Conclusions

1. Number and ownership of rural banks declining due to
   - —mergers
   - —failures
2. Financial services maintained, due to
   - —bank holding companies using State regulations to turn banks into branches
   - —failed banks becoming branches of other banks or restarting under new owners
3. More rural communities being served by a combination of local and urban banks

Goals of Deregulation

Recent changes in banking legislation and regulation have aimed to strengthen the industry and to provide consumers with more services and more choices among providers.

Commercial banks play a prominent role in supplying credit and financial services to the business sector, especially in rural areas that lack easy access to other financial institutions. Financial deregulation and recent innovations in communications and information technology have increased rural links with national financial markets, but local commercial banks remain important to the efficient operation of many rural economies. Small businesses rely heavily on their local banks for the credit needed to finance daily operations and to modernize, expand, and transfer ownership. Thus, factors affecting the structure of rural bank markets and the operations of banks serving rural America directly affect rural development prospects.

During the 1980's, the banking industry changed markedly in response to economic adjustments, technological developments, and regulatory changes at the Federal and State levels. Regulations controlling rates and types of deposits offered by banks were largely eliminated at the beginning of the decade. The recent rash of bank failures resulting from troubles in the agricultural and energy sectors has raised the public's concern for the safety of bank deposits. Geographic restrictions governing where banks can operate have also been relaxed in many States, freeing large banks to move across State lines and encouraging mergers among bank firms. Congress is considering legislation that would let commercial banks compete with investment banking, insurance, real estate, and securities firms by offering services that banks have been largely prohibited from providing since the 1930's.

Deregulation is meant to strengthen the financial services industry by increasing competition and encouraging greater diversification, but the benefits are not without costs. Small depositors now enjoy a range of savings options offering attractive interest yields, but borrowers find interest rates on their loans fluctuate wildly with national and international events. Proposed legislation to broaden bank powers may help stabilize bank profits, but some fear this would further threaten the safety and soundness of a banking system that already seems rife with risks.

Of special concern to rural areas are the potential effects of geographic deregulation. The ownership and control of commercial banks has traditionally been a concern of rural policymakers. Events of the 1980's caused some worry that the banking system will become too centralized as control of rural banks shifts from local investors to large banks and bank holding companies. This report addresses this issue, emphasizing the effect recent regulatory changes have had on rural banks and bank markets.

Importance of Local Ownership

Locally owned rural banks may provide personalized service, but some large, urban-based banking companies have supported rural markets and provided security and strength based on their size.

Some individuals fervently believe that locally owned and operated community banks are critical to the future economic development of rural areas. Because these bankers know the local residents and their businesses, they can confidently agree to loans that would never meet the rigid requirements of large, urban-based banking firms. Instead, the argument goes, branches or holding company affiliates of outside banking organizations would transfer rural deposits for use in cities where lending opportunities are better understood and seemingly more profitable.[1]

Dunham argues that small community banks export significant amounts of local funds (about 43 percent of their assets), primarily through nonloan investments such as the purchase of Federal Government securities, sales of Federal funds (a national market for short-term loans to other banks), and deposits held at larger correspondent banks to pay for check clearing and other services (*7*).[2]

Other individuals stress the ability of large banks to provide a wider variety of loan products and other financial services, and the implicit safety that arises from geographic diversification. As traditional rural industries decline, outside banks may be better positioned to help residents start new businesses that would not be familiar to community banks. By serving many localities, problems in one industry (such as agriculture) are less likely to harm the bank to the point of disrupting its ability to meet other local credit demands.

Instead of fearing the demise of the rural community bank, they worry that large banking organizations no longer have a need or interest in gaining a direct rural presence. Loans and deposits are now bought and sold in national and international financial markets. The labor-intensive work of serving low-density rural markets may be left entirely to small community banks, thus depriving rural entrepreneurs of the expertise enjoyed by urban entrepreneurs with easy access to large banking organizations.

Anecdotal evidence supports both sides, but the wider truth is simply not known. Examples exist of highly profitable community banks that ignore the credit needs of their communities in favor of safe investments, such as Government securities (*3*). On the other hand, many small community banks failed during the 1980's because they tried too hard to accommodate long-time borrowers experiencing financial problems. Large branch banking firms in Arizona have furthered rural development by transferring funds to those rural communities experiencing rapid economic growth (*4*). But, several large Midwestern multibank holding companies have been widely criticized for abandoning their rural borrowers during the height of the agricultural finance crisis, in favor of more lucrative investments.

Is the loss of local decisions more than balanced by access to services available from large, diversified financial firms? Data limitations preclude us from answering this important question. Instead, we concentrate on the more basic question of whether rural bank ownership is being affected by deregulation and other forces causing change in the banking industry. We describe the rural financial system, explore the evolution of banking structure, review the current configuration of rural bank markets, and speculate on future changes. We also focus on the ownership of rural banks--are rural banks independent firms, or are they part of larger banking organizations headquartered elsewhere? Urban-based banks play an important and increasing role in rural banking markets, but the evidence to date suggests that rural-based banking firms can coexist with their larger cousins and continue to serve rural credit needs.

---

[1] We use "bank firm" and "bank organization" interchangeably in this report. Independent banks, one-bank holding companies, and multibank holding companies each count as a single banking firm regardless of how many bank branches or bank affiliates they control. We assume that the total organization, rather than any particular office, determines the range and quality of financial services provided to members of the community or communities served by the banking firm.

[2] Italicized numbers in parentheses identify sources cited in the References at the end of this report.

Sources of Rural Credit

Rural borrowers can get credit from many sources, including savings and loan associations and the Farm Credit System, but commercial banks continue to dominate.

A variety of private and public financial organizations serve rural firms and households. Commercial banks are responsible for the bulk of rural business credit, but other types of lenders have large market shares for specific services, and some have access to national money markets that may free up local funds for lending by rural banks.

There are fewer savings and loan associations (also called "S&L's" or "thrifts") than banks, and their numbers are declining rapidly because of the industry's well-publicized difficulties. But thrifts have generally operated under less restrictive branching regulations. When S&L's concentrated on residential mortgage lending, banks were free to take care of other rural credit needs. S&L's were given broader banking powers that might have brought the benefits of expanded financial competition to some rural communities. However, the 1989 bailout legislation aims to prevent future problems by outlawing certain activities and providing incentives to return S&L's to mortgage lending. Mutual savings banks, another type of thrift, are often large but concentrated in New England. Credit unions are typically quite small, but they are becoming more competitive as they expand both the range of financial services offered and the sorts of common bonds required to define permissible pools of members.

The Farm Credit System (FCS) consists of a specialized set of agricultural lenders. Although it directly benefits farm borrowers, other borrowers are aided in that FCS obtains its loan funds from national money markets. Thus, local bank deposits remain available for other purposes. This benefit is potentially greatest in heavily agricultural regions that are served primarily by independent unit banks. Insurance companies have similar effects when they invest in farmland mortgages.

Other sources of credit include merchant and dealer credit, finance companies, and Government agencies, such as the Farmers Home Administration and the Small Business Administration. Government programs are often drafted to serve borrowers that do not qualify for loans from private lenders.

Sources of Rural Credit

- Commercial banks (dominant source)
- Savings and loan associations (few in number and declining)
- Credit unions (usually small)
- Mutual savings banks (concentrated in New England)
- Farm Credit System
- Insurance companies
- Merchant credit
- Finance companies
- Government agencies such as the Farmers Home Administration and the Small Business Administration

Structure of the Commercial Banking System

State laws governing branching and ownership determine the structure of a State's commercial banking industry.

The Nation's commercial banks operate within a dual banking system, with banks chartered by both the States and the Federal Government. Each State sets up its own regulations to control the ownership and branching structures of State-chartered commercial banks. Federal regulators then give the same authority to banks with national charters. This dual system has led to wide variation among States in the number of banks and bank branches and in the structure of bank ownership. Over 14,000 commercial banks insured by the Federal Deposit Insurance Corporation (FDIC) were headquartered in the United States in 1986, ranging from one-office independently owned banks to large multibank organizations operating thousands of offices and controlling billions of dollars in assets.

In describing the structure of the banking system, two characteristics must be examined, branching and ownership. Branching structure refers to whether or not the bank operates more than one full-service bank office and, if so, the geographic coverage of its branching network. Permissible branching structure is regulated by State law. Ownership structure refers to whether the bank is an independently owned and operated firm or is an affiliate of a bank holding company (HC).

States are usually divided into three groups determined by branching: unit banking (no branch offices permitted), limited branching (branches in designated areas), and statewide branching (branches anywhere). Because these terms are imprecise, the distinctions between the rules governing banks in each category are not always striking. For example, some limited branching States allow branching across contiguous county lines or within fairly liberal mileage restrictions. Some statewide branching States have tighter restrictions on new branches, although they allow statewide bank mergers.

To better reflect the diversity of the commercial banking system, table 1 and appendix table 1 further categorize limited branching and statewide branching States. "Very limited branching" means banks can operate branch offices only in their home county or within a few miles of their headquarters. "Less limited branching" allows banks to operate branches in contiguous counties or establishes a less restrictive distance constraint. States that allow statewide branching are divided into those that allow the creation of new ("de novo") branches and those that require banks to acquire branches through mergers.

An HC is a firm that owns at least one bank and possibly other subsidiaries in related fields such as mortgage banking, discount stock brokerage, and consumer finance. Taking on the HC format subjects a bank to supervision by the Federal Reserve Board, but in return the HC may use nonbank subsidiaries to enter otherwise ineligible businesses, gain tax advantages, and issue certain forms of securities to raise additional funds for expanding its bank(s). In particular, an HC can issue commercial paper (banks cannot) and use the proceeds to purchase certificates of deposit (CD's) from its bank affiliate (*8*).

A multibank holding company (MBHC) owns at least two bank affiliates. The banks are nominally independent, with separate charters and boards of directors. But, the holding company sets policy and may choose to keep its affiliates on a leash as short as that given to bank branches. About two-thirds of all banks are now controlled by one-bank HC's (an HC with a single bank affiliate) or MBHC's.

Table 1—Bank branching patterns, June 30, 1986

State branching law	States	Banks	Banks with-- No branches	Banks with-- Intracounty branches	Banks with-- Intercounty branches
	Number		*Percent*		
Unit banking	6	3,491	82	17	1
Very limited branching	11	5,524	47	46	7
Less limited branching	6	1,753	34	48	18
Statewide (by merger)	6	1,644	46	43	12
Statewide (unlimited)	22	1,750	24	43	32
Total	51	14,162	51	38	11

Note: Includes District of Columbia. Appendix table 1 presents State-level data. Total percentages may not sum to 100 due to rounding.
Source: (*10*).

Structure of the Commercial Banking System

- **Branching characteristics:** Refers to the number of full-service offices and their geographic coverage by State
  - –Unit
  - –Very limited
  - –Less limited
  - –Statewide (by merger)
  - –Statewide (unlimited)
- **Ownership characteristics:** Refers to the presence of bank holding companies (HC's)
  - –Independent (no HC)
  - –Affiliate
    - One-bank holding company (OBHC)
    - Multibank holding company (MBHC)

Bank Branching Patterns by State

Most States permit branching, but often with some restrictions.

The regulatory trend has been toward less restrictive intrastate bank branching, but diversity across States persists and is not likely to end anytime soon (table 1). Amel reports that of the 219 changes in branching regulations he identified since 1960, only 9 tightened geographic restrictions; the remainder eased geographic restrictions, although often with minor results (*1*). Since 1960, 22 States have significantly liberalized their branching restrictions, with most of these changes coming within the last 10 years (figs. 1 and 2). Appendix table 4 provides more complete detail on which States changed their bank branching legislation and when. The trend toward statewide branching should be accelerated by the Comptroller's 1987 decision that grants national banks branching authority equivalent to that held by a State's S&L's.

Analyzing legislative changes can lead to ambiguous conclusions. Amel argues that changes such as going from unit banking to very limited branching are insignificant, although we chose to include all changes among the five branching categories (*1*). The Conference of State Bank Supervisors groups States by the type of branching which is prevalent, rather than legal (*6*). Bank structure changes slowly, and in some cases decisions made by State banking regulators can thwart efforts by bank managers to take advantage of "legally permitted" activities. For example, the Georgia banking commissioner has the authority to let holding companies operate new acquisitions as branches of the lead bank.

About half of the banks in mid-1986 had no branch offices. The other half operated one or more branch offices in addition to the bank's headquarters. These branching networks varied from one additional limited-service facility located within a mile of the bank's headquarters to hundreds of full-service branches located throughout the State. The relative number of single-office banks generally declines and the number of banks with multicounty branching networks rises as branching restrictions are eased (app. table 1). The exception to this trend is the group of States that allow statewide branching only through mergers. The banking systems of these States more closely resemble the systems of States with limited branching than the systems of States that allow unrestricted statewide branching.

The variability within commercial banking indicates that State laws only partially explain the structure of the banking system. Exclusions, exceptions, and other loopholes in the banking statutes enable some commercial banks in unit-banking States to operate branching networks. Tradition, the historical development of the State's banking system, and the economics of the financial services delivery system allow small, one-office banks to account for a sizable number of the banks operating in States with a long tradition of statewide branching. The banking systems of States that have recently liberalized their branching restrictions often differ from the systems of States that have a longer branching tradition. Bank managers adjust slowly to changes in banking restrictions, and the opportunities for geographic expansion are often limited in mature economies. Thus, changes in State law can have a pronounced effect, but changes tend to be gradual and, to a certain extent, unpredictable.

Figure 1

State bank branching laws as of December 31, 1959

Source: *(1, 3)*.

Figure 2

State bank branching laws as of December 31, 1986

Note: Fig. 2 classifies States according to laws that were scheduled to take effect by the end of 1986.
Source: *(1, 3)*.

Bank Holding Company Characteristics by State

Multibank holding companies (MBHC's) are more active in States that severely limit the ability of banks to expand their branching networks.

The MBHC format has been used as a substitute for branches in States that restrict branching. Some States eliminated this option by outlawing MBHC's. Only Mississippi continues to outlaw MBHC's, but other States still limit the number of affiliates or the proportion of State deposits that can be controlled by a single holding company. MBHC's controlled about 29 percent of the Nation's banks in mid-1986, but this proportion understates their importance within the banking system. In 1986, MBHC's controlled 51 percent of the commercial bank offices operating in this country and 51 percent of the banking system's total assets. Table 2 summarizes bank holding company data by type of State branching law.

MBHC affiliates generally make up a higher proportion of banks in States with tight branching restrictions than they do in States with very liberal branching laws. Texas alone had 828 MBHC affiliates, and other States that restrict branching (or did until recently) also had above average proportions of their banks owned by MBHC's (Colorado, Michigan, Missouri, Montana, New Hampshire, New Mexico, Wisconsin, and Wyoming). The two groups of States allowing statewide branching had the lowest average percentages of MBHC-affiliated banks, but several exceptions to this overall trend are apparent. Almost two-thirds of Delaware's banks were part of MBHC's, because of special-purpose credit card banks organized by large non-Delaware banks. Florida, Maine, Massachusetts, and New Jersey are all branching States with a relatively high proportion of MBHC affiliates. Florida and Massachusetts only recently permitted statewide branching, and the process of reorganizing MBHC's as branch banks may not be complete. In Maine and New Jersey, interstate mergers of holding companies or remaining restrictions against branching in towns with fewer than 10,000 residents may account for the MBHC concentrations. Illinois, nearly a unit-banking State, was only slightly above average because MBHC activity was liberalized only in the last few years.

State Regulations

- Limit HC size
- Prohibit new affiliates and acquisitions of banks under 5 years old
- Geographically restrict HC operations
- Prohibit MBHC's

Table 2—Bank holding company affiliation by type of State branching law, June 30, 1986

State branching law	Banks affiliated with--		
	No holding company	One-bank holding company	Multibank holding company
	Percent		
Unit banking	30	33	37
Very limited branching	33	37	30
Less limited branching	37	39	25
Statewide (by merger)	37	40	23
Statewide (unlimited)	49	31	19

Note: Includes District of Columbia. Appendix table 1 presents State-level data. Total percentages may not sum to 100 due to rounding.
Source: (*10*).

Joint Role of State and Federal Regulations

Recent Federal and State laws have reduced the restrictions on commercial banks and encouraged changes in branching patterns and product lines.

Changes in Federal and State bank regulations have directly or indirectly affected the geographic scope of bank operations. Federal legislation generally defers to State banking restrictions. The McFadden Act of 1927 and the Banking Act of 1933 allowed nationally chartered banks in each State to operate under the same branching restrictions as those of State chartered banks in that State. Thus, geographic deregulation has proceeded primarily at the State level, with Federal legislation having an indirect role.

Banking organizations can often geographically expand through the acquisition of additional MBHC affiliates, either by mergers or by opening new banks. In unit-banking States, MBHC's are made up of a number of single-office banks. In limited branching States, MBHC affiliates are often branching banks, with offices located throughout a county. After tightening restrictions during the 1950's and 1960's, many States eased restrictions on MBHC activities during the 1970's and 1980's, often in conjunction with changes in branching restrictions. But Missouri, Tennessee, and Texas tightened MBHC restrictions over the last two decades.

Texas legislation passed in 1987, however, introduced limited branching and allowed consolidation of holding companies to one affiliate per county. Thus, some MBHC's are converting their affiliates to branches of county-consolidated banks, but MBHC's will remain important for Texas bank organizations that wish to serve more than one county.

By 1986, only 18 States continued to restrict MBHC activity, either through geographic restrictions or restrictions on the permissible size of HC assets (or deposits) compared with the assets of all banks in the State.

Changes in State regulations were needed to increase the permissible geographic expansion of bank organizations, but Federal oversight of the banking industry may have encouraged some of these State moves. A fear of concentrated economic power was at the heart of many State laws that fostered decentralized banking systems comprised of many small banks. However, through a series of legislative actions and court decisions at the Federal level, culminating in the Change in Bank Control Act of 1978, changes in the ownership of banks, even State-chartered banks, come under the scrutiny of the Federal Reserve Board. Since market concentration became a determinant of whether sales and mergers were approved or not, State legislators may have worried less about the consequences of geographic deregulation, knowing that competition would be maintained within local markets through the Federal Reserve Board's oversight.

The 1978 Act also had a slight direct effect on banking structure by spurring some chain banks to reorganize as MBHC's. Bank owners can develop chains of banks without setting up a holding company as an outer shell. These chain bank organizations (comprised of two or more banks controlled by the same investors) can serve multiple markets without coming under Federal oversight, as HC's must. However, the 1978 Act meant that chain banking organizations came under Federal scrutiny whenever ownership of one of the chain's banks changed hands. Because chain banks that wished to expand needed Federal approval anyway, and because HC's have other advantages over a chain bank structure, some chain bank organizations have formed MBHC's in recent years.

Little evidence on chain banks exists, but Luckett believes that most involve two or three banks (*16*). He also suspects that chains have expanded in States such as Oklahoma where people expected MBHC's to be legalized soon. Banking executives in those States wanted to be ready to take quick advantage by converting chains to MBHC's.

Other Federal legislation has unexpectedly changed the incentives and options facing bank managers. Federal legislation in the early 1980's, phasing out restrictions on the interest rates banks could pay on deposits, reduced the incentive for maintaining large branching networks as the primary engine for growth. Banks formerly competed on the basis of service, such as a branch on every corner, and acquired loanable funds primarily through retail savings and demand deposits. Interest rate deregulation allowed banks to compete for deposits with other investment outlets, but it also raised the cost of attracting retail deposits. Faced with these higher retail costs, banks began making more use of large certificates of deposit (CD's), often purchased through brokers. The interest rates on CD's are higher than those paid on regular deposits, but transaction costs for handling them are often lower

than for more traditional checking and savings accounts. Thus, even when banks receive permission to expand their branching operations, many choose to grow without taking on the expense of building new offices and training managers to run them. And some banks in statewide branching States have reduced the size and geographic coverage of their branching networks, relying instead on automated teller machines (ATM's) to serve their retail customers.

State and Federal Regulations Jointly Control Geographic Expansion

- State regulations govern *intrastate* banking

  Have been the main source of relaxed geographic restrictions.

- Federal regulations defer to State restrictions on bank structure

  Have had an indirect role by changing incentives. For instance,

  – Change in Bank Control Act of 1978 brought ownership changes under control of the Federal Reserve Board, which spurred formation of MBHC's by chain banks.

  – Interest rate deregulation slowed branching by emphasizing multiple products and large CD's.

Interstate Banking Is Expanding

Only five States totally prohibit interstate banking by holding companies. But the national ban on interstate branching remains in effect.

Interstate banking was rare until recently because Federal legislation prevents commercial banks from operating full service bank branches in other States, and the Bank Holding Company Act of 1956 banned acquisitions of banks outside an MBHC's home State. However, the 1956 Act included a huge loophole: an individual State could give MBHC's from other States permission to acquire banks within its borders. Thus, States began in 1978 to allow interstate banking, and the trend has spread rapidly during the 1980's.

Though details vary substantially, five States, at most, have failed to pass legislation authorizing some form of interstate banking (table 3 and app. table 2). Reciprocity is often required, at least in the initial years. Regional compacts, in which only banks from a specified list of States are eligible, were quite popular in the early stages of the interstate banking movement. Such compacts allow local banks time to merge and become large enough to remain independent before having to compete with large money center banking organizations. But, such protection is usually limited in time, after which the State's banking market is opened to all comers. If the process continues, Federal action in this arena will soon become irrelevant. By 1992, 29 States are scheduled to permit nationwide banking.

State legislation is also differentiated by whether or not new (de novo) banks are an option in addition to purchasing existing banks. Preventing de novo entry may seem to contradict prevailing competitive tendencies in the economy, but the stock price of a bank that is a potential candidate for acquisition may rise significantly if a merger is the only way other banks can enter the market. Entry by merger is equally attractive for the outside bank, since that can eliminate years of work required to build a strong local franchise. Banks with a strong desire to remain independent also fight for barriers to slow the entry of competitors into their markets.

A grandfather clause in the 1956 Act allowed existing interstate MBHC's to keep their affiliates. Thus, several early interstate MBHC's may appear inconsistent with current State laws. Other, more recent inconsistencies resulted from special provisions in Federal and State legislation to deal with failing banks. Opening up the bidding process to out-of-State banks increases the likelihood that the FDIC can find a buyer for an insolvent bank, rather than liquidate it.

Some States passed legislation to permit continued expansion by grandfathered interstate MBHC's. First Interstate, created by the forced divestiture of Transamerica Corporation into Bank of America and First Interstate, is based in California and has affiliates in many Western States. Several large MBHC's based in Minnesota have banks in neighboring States. Boatmens has its lead bank in Missouri, with affiliates in Illinois and Tennessee, and merged recently with a larger MBHC (Guardian) that served only Missouri. To avoid losing the grandfather exemption, the parties agreed to structure the deal on paper as if Boatmens purchased Guardian. The First American Bank system serves the District of Columbia, Virginia, Maryland, New York, and Tennessee.

Special-purpose banks, typically the "credit card bank," are permitted by legislation in several States. Some banks market credit cards nationwide through the mail. By issuing cards from a bank affiliate in a State with less restrictive regulations governing annual fees, interest rate ceilings, and other terms, the holding company can bypass restrictions on these terms in its home State. Delaware has been especially successful at attracting these affiliates, but Maryland, Nebraska, Nevada, South Dakota, and Virginia have similar legislation. The idea is to attract jobs for State residents, while placing restrictions on the permissible activities of the credit card bank to prevent it from competing with local banks in local markets.

A second loophole in Federal banking legislation led to the invention of the "nonbank bank." Before 1987, legislation prohibiting interstate banking described banks as entities that provide both transaction accounts (checking accounts) and commercial loans. Hence, a firm that looked very much like a bank (had a bank charter and received Federal deposit insurance) could operate offices in more than one State, provided that it withheld offering either checking accounts or commercial loans. Some operations got started, usually as consumer banks that made no commercial loans, but despite much publicity, they had little effect on the financial industry. A clause in the Competitive Equality Banking Act of 1987 removed the loophole.

About 160 grandfathered nonbank banks were allowed to continue operating, but the legislation restricted their asset growth.

In 1986, we also found three exceptions in which banks operated modest interstate branching networks. The Bank of California had one office in Oregon and three in Washington, California First Bank had one Oregon branch, and the Midlantic National Bank (South) of New Jersey owned a Philadelphia branch. Some cases of foreign banks with offices in more than one State (under the International Banking Act) were excluded from our tables. The 1989 thrift bailout legislation may lead to more such exceptions, but branching is not a realistic approach for interstate expansion. However, because interstate MBHC affiliates can operate branches as permitted by those States, in many cases these restrictions are not critical.

Table 3—Interstate banking legislation

Interstate banking not permitted	Hawaii, Iowa, Kansas, Montana, North Dakota
Reciprocal regional interstate banking	Alabama, Arkansas, Connecticut, District of Columbia, Florida, Georgia, Maryland, Massachusetts, Minnesota, Mississippi, Missouri, New Hampshire, North Carolina, South Carolina, Tennessee, Virginia, Wisconsin
Reciprocal national interstate banking	California, Delaware, Illinois, Indiana, Kentucky, Louisiana, Michigan, Nebraska, New Jersey, New York, Ohio, Pennsylvania, South Dakota, Vermont, Washington, West Virginia
Unrestricted national interstate banking	Alaska, Arizona, Colorado, Idaho, Maine, Nevada, New Mexico, Oklahoma, Oregon, Texas, Utah, Wyoming

Note: Appendix table 2 provides additional detail on specific State laws.
Source: (*1*, *3*).

Recent Trends Suggest Future Possibilities

Federal and State laws, economic events, and technology have dramatically changed commercial banking in the last 25 years.

Banks expanded their geographic coverage through networks of branches as States liberalized their branching restrictions. But much of this expansion was simply converting multibank holding company affiliates to branches. In States with long branching traditions, at least some large banks have actually reduced their branch networks by eliminating unprofitable branches in the wake of interest rate deregulation and the introduction of ATM's. Economic developments and more permissive laws have led to a growing number of bank mergers. Economic developments have also led to record numbers of bank failures during the 1980's.

Looking at bank structure over time and emphasizing those States with extreme or new regulations governing bank branching and holding companies should suggest possible scenarios for the future evolution of bank markets. In this section, we examine several aspects of bank structure for individual States across time, looking at fluctuations in the numbers of banks, new banks, bank failures, banks absorbed as branches of other banks, and holding company activity.

Because deregulation has proceeded primarily at the State level, affecting all of the State's banks, our analysis looks at State aggregates, with only occasional reference to trends in rural areas. We can point out some differences and trends that highlight the effects of prior laws or fluctuations that follow close on the heels of new State banking legislation. Even if few surprises show up in these data, identifying past responses by the banking industry provides context for speculating about what will happen because of recent and anticipated deregulation due to action by Congress or the various State legislatures.

When contemplating the possible implications of this State analysis on rural communities, it is important to keep two things in mind. First, past trends cannot be extrapolated to predict the future without giving thought to changes in the financial environment. As an important example, banks in States that have just opened themselves to widespread branching may not look as favorably upon branching as an expansion technique as did banks in other States 10 or 20 years ago. Rather, merger is more popular these days.

Second, while rural areas are becoming more integrated with the national economy, remaining differences will probably cause the evolution of rural financial markets to diverge from the path taken by large urban markets. Rural communities have fewer and usually smaller businesses. If large banks prefer to deal with large customers, we should not expect to observe the same mix of banks serving urban and rural markets.

Changes in the Number of Banks

Mergers, holding company reorganizations, and failures in the late 1980's have reversed a 20-year upward trend in the number of banks. Still, four States' rapid economic and population growth led the Nation in the number of new banks during 1960-86.

The numbers of insured commercial banks grew by 965 during 1960-86, but the number of rural banks declined by 1,458 in that same period (table 4, app. table 3, and fig. 3).[3] Total banks grew in the 1960's and 1970's, peaked at around 14,500 in 1984, and dropped below 13,000 by the end of 1989, the lowest since 1960 at least (fig. 4). The number grows when new banks are chartered by State or Federal regulators, and declines as banks are converted to branches or closed following mergers, MBHC reorganizations, and failure. State banking laws, local economic and demographic conditions, and the initial banking structure are important in understanding the substantial variations across States shown in appendix table 4.

Growth in unit-banking States such as Colorado and Texas is easy to accept, as are declining bank counts in older industrialized States with at least limited bank branching powers (much of New England, New Jersey, New York, Ohio, and Pennsylvania). Some of these States liberalized branching during this period. Statewide branching has long been established in California, but total banks still grew from 110 to 471.

Florida falls somewhere in between. The growth in banks (from 288 to 397) did not match the explosive growth of the economy and population. However, Florida went from unit to statewide branching during this period. Thus, many banks became branches of other banks through new mergers or MBHC consolidations.

What were the dynamics of 1960-86 changes in bank structure? New banks were formed, while others disappeared as independent entities through mergers and failures. Other banks remained nominally independent but became affiliates of multibank holding companies.

[3] The rural/urban division of counties varies over time as new metropolitan statistical areas (MSA's) are designated. Rural or urban location is determined by whether the bank's headquarters is in a Metropolitan Statistical Area (MSA). The table applies definitions in effect in 1960 and 1986, respectively.

Table 4—Bank location, selected States

State	January 1, 1960			December 31, 1986		
	Rural	Urban	Total	Rural	Urban	Total
	Number					
Arizona	3	5	8	8	45	53
California	21	89	110	32	439	471
Colorado	109	52	161	157	313	470
Illinois	530	419	949	540	677	1,217
Maine	39	9	48	14	8	22
Montana	103	12	115	146	23	169
New York	197	204	401	54	142	196
Oklahoma	298	83	381	312	207	519
Pennsylvania	317	394	711	107	195	302
Virginia	238	71	309	97	73	170
U.S. total	9,017	4,090	13,107	7,559	6,513	14,072

Note: Appendix table 3 provides State-level data.
Source: Compiled from (*13*).

Four States Led Nation in New Banks, 1960-86

Texas, Florida, California, and Colorado accounted for 45 percent of the new banks that opened during 1960-86 (table 5 and app. table 5). Those States have consistently led the way for two decades. Florida has done very well the past few years even though it now permits statewide branching, and California has had more than 10 new banks every year since at least 1973 in spite of extensive branching by its leading banks. Whether this growth is because investors have identified market niches in growing economies or have sought quick returns by selling out in a few years we are not sure. The latter possibility is more likely in Florida because branching outside a bank's home county can only proceed by merger (app. table 4).

The creation of new banks is closely associated with rapidly expanding economies; Texas and Florida have led the country in the number of new banks formed since 1960. But branching restrictions certainly play a role. If existing banks cannot open new branches, investors and multibank holding companies are more likely to charter new banks.

Some new banks follow the closure of other banks by failure or merger. Of the 203 failures in 1987, 17 cases were resolved by chartering new replacement banks (*9*). California had the third highest number of new bank formations over this period, but one would have expected it to be first based on total economic growth. However, active statewide branching firms entered or expanded in growing markets through branches rather than new banks. Nonetheless, the California experience suggests that small banks can successfully find market niches among the industry behemoths.

Fewer than a fourth (1,520 of 6,306) of the 1960-86 new banks were headquartered in rural counties. Rural banks remain a majority, but the gap has narrowed quite a bit (table 4). Comparing bank office numbers would paint a drastically different picture, as total urban bank offices far exceed rural offices. Rural bank markets have apparently tended to be more stable; fewer new banks have been established, but also fewer have been involved in mergers.

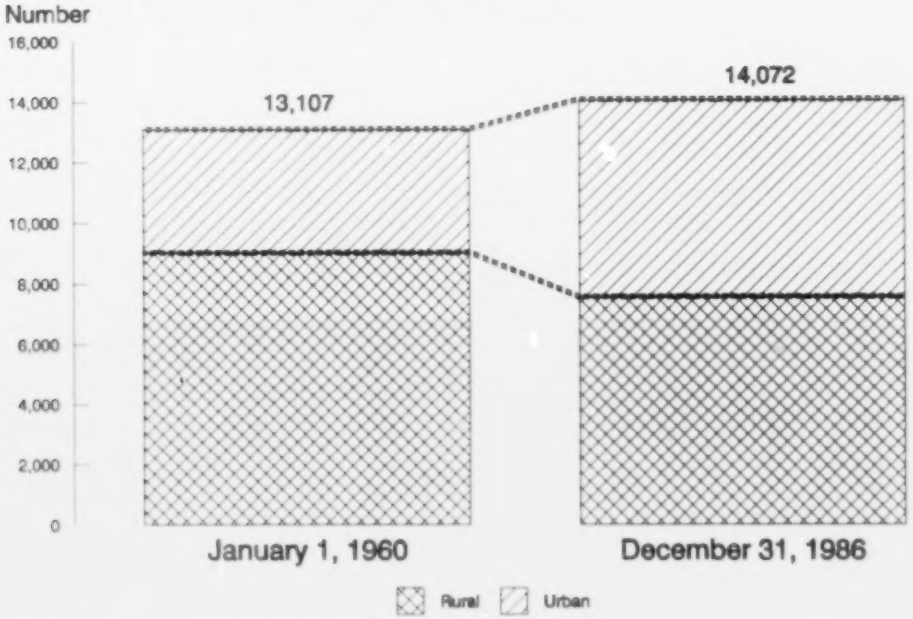
Table 5—New bank formations in selected States

State	1960-72	1973-76	1977-80	1981-83	1984-86	Total
			Number			
California	165	82	104	171	83	605
Colorado	123	68	82	118	55	446
Florida	291	178	30	73	109	681
Texas	287	139	113	280	313	1,132
U.S. total	2,352	1,155	811	972	1,016	6,306

Note: Appendix table 5 provides data for all 50 States and District of Columbia.
Source: (*13*).

Figure 3

Trend in numbers of rural/urban banks



Note: Insured commercial banks in DC and the 50 States.
Source: *(13)*.

Figure 4

Number of banks, year end 1960-89

Note: FDIC insured commercial banks in DC and the 50 States.
Source: *(13)*.

Bank Failures

Many of the 484 commercial banks that failed between January 1983 and July 1987 were headquartered in rural counties and had above-average ratios of farm loans to all loans.

The FDIC handles the disposition of insured commercial banks after they are closed by the appropriate State or Federal chartering authority and keeps official statistics on failures. The FDIC uses the least costly of several available methods to resolve failures, depending in part on the condition of the bank and its market and the State's branching laws. As a last resort, the bank is simply liquidated, with insured depositors paid off, bank offices shut down, and loan accounts taken over by the FDIC. More often, service is maintained to the bank's customers. Deposit accounts may be transferred to a neighboring bank. If State law permits branching, the bank may become a branch of some other bank. Often a new bank opens on the same premises, in many cases on the next business day following closure if the FDIC finds willing investors or bank holding companies (where legal) with the necessary experience and capital. The FDIC has recently experimented with open bank assistance--the bank is never formally closed, but the FDIC provides financial assistance sufficient to place the bank back on a solid footing.

Open bank assistance was used for 21 of 221 failures in 1988. The number almost expanded significantly in 1988 as the FDIC considered assistance packages for two large Texas multibank holding companies, each with dozens of bank affiliates (*15*). But, one deal was structured to count only the lead bank as an open bank assistance case, and the other case was resolved by closing all bank affiliates and immediately reopening them under management of a North Carolina MBHC.

More than half of the insured commercial banks that failed during 1983 through the first half of 1987 did so in 1986 and 1987 (table 6). Most of those 484 failures were headquartered in rural counties, and many were agricultural banks (those with an above-average ratio of farm loans to total loans). With a couple of exceptions, State data suggest that failures occur primarily where restrictive branching meets severe economic problems. Most failures were relatively small banks in States that prohibited or limited bank branching. Depressed conditions in the agricultural and energy sectors magnified problems caused by lack of diversification, volatile interest rates, and bad or fraudulent bank management. Thus, bank failures surged during the 1980's. Colorado, Iowa, Kansas, Minnesota, Missouri, Nebraska, Oklahoma, and Texas are among the leading examples of this process.

Tennessee also had many failures, but most were banks controlled by a single family. We are not sure how to explain the 29 California failures, though one possibility is that failures are related to the greater latitude of California's state-chartered banks in areas such as real estate development and equity participation. Statewide branching is quite extensive in California, but the largest banks did not fail. Because California also typically has many new banks, perhaps it provides a glimpse of what the future U.S. banking structure might look like. At the very least, that 11 of these banks were less than 5 years old suggests that banking is no longer a sure investment. A high failure rate for new firms is normal for most businesses, but no more than 20 insured banks failed in the whole country in any single year between 1940 and 1980.

Past or present problems of several large bank organizations (achieved with or without the benefits of branching and including some large Texas MBHC's) amply demonstrate that large size does not protect a banking firm from poor management. But, many State legislatures have bought the argument that wider branching, interstate banking, or both, can provide better, maybe safer financial services to business and consumers. The long trend away from restrictions on intrastate branching and holding company activity has accelerated as a response to bank failures, interest rate deregulation, and technological change.

Bank failure is probably the most dramatic form of structural change. Because outright liquidations are rare, however, arguments over whether public policy should do more to prevent failure apply equally well to issues such as merger and interstate banking policies. The loss of a competitor and the absence, in some cases, of local decisionmaking on loan applications are tradeoffs against possible gains such as a wider variety of services and bigger loan limits.

Table 6—Failed banks in selected States, by type, location, and year of failure

State	Type[1]		Location		1983	1984	1985	1986	January-July 1987	Total
	Agricultural	Nonagricultural	Rural	Urban						
					Number					
California	1	28	1	28	5	6	7	8	3	29
Colorado	6	17	10	13	1	2	6	7	7	23
Illinois	8	9	8	9	6	6	2	1	2	17
Iowa	26	2	26	2	0	3	11	10	4	28
Kansas	32	8	32	8	1	7	13	16	3	40
Louisiana	3	14	8	9	0	1	0	9	7	17
Minnesota	18	4	19	3	1	4	6	5	6	22
Missouri	21	6	22	5	1	2	9	10	5	27
Nebraska	25	0	24	1	1	5	13	6	0	25
Oklahoma	23	28	27	24	1	5	13	17	15	51
Oregon	3	10	5	8	4	5	3	1	0	13
Tennessee	3	28	17	14	12	11	5	3	0	31
Texas	19	59	29	49	3	6	12	26	31	78
Wyoming	2	13	10	5	1	2	5	7	0	15
U.S. total	214	270	274	210	44	78	118	144	100	484

Note: Appendix table 6 provides State-level data for 50 States and the District of Columbia.

[1] A bank is agricultural if its ratio of farm loans (production loans plus real estate loans secured by farmland) to total loans exceeds the average for all insured U.S. commercial banks. The reverse is true for nonagricultural banks.

Source: (*9, 14*).

Bank Mergers and Acquisitions

Banks merge or one bank acquires all or part of another firm most often in States that allow branching operations.

Bank mergers can take at least two forms. One bank may purchase a second bank and convert it to a branch. In other acquisitions, the lead bank takes over the deposit and loan accounts of the purchased bank, but then closes it rather than operating it as a branch if the purchased bank is near an existing office or if State law would not allow a branch (at least at that location). Table 7 addresses the former case, showing the nine States with at least 100 absorptions between 1972 and 1986.

Another merger method is for a bank holding company to acquire a bank and, either by choice or out of legal necessity, run it as an affiliated bank with its own bank charter, officers, and board of directors. Whether or not the organizational form (branch or affiliate) makes a difference with respect to local decisionmaking on loan applications is one of the key issues faced by States considering relaxed branching restrictions.

During 1972-86, almost 3,000 banks were absorbed as branches of other banks (table 7 and app. table 7). State banking legislation is critical to placing these data in context. Florida had no absorptions when only unit banking was allowed but had 78 in 1977 when limited branching began. Although the annual number was never again that large, absorptions have continued as MBHC's and perhaps chain banks reorganized their affiliates as branches. Some Florida absorptions were new purchases by independent banks or holding companies. Available data do not permit us to estimate the relative shares of absorptions associated with MBHC reorganizations and acquisitions.

Observing absorptions is not surprising in any State that permits branching, because obtaining an existing firm gives a bank a running start in entering a new market or increasing its share of a market that it already serves. Sudden jumps in the rate at which banks become branches of other banks can often be explained by new branching legislation. Absorptions are particularly likely in States that permit statewide branching only by merger (Alabama, Florida, South Dakota, and Virginia). Colorado, Illinois, and Texas have absorptions that need explaining because they appear inconsistent with branching restrictions in effect at that time. Some of the recent absorptions may be due to special provisions covering failed banks, while earlier cases may have been permitted by grandfather clauses or specific legislative acts.

Some bank transactions increase the number of separate banking organizations or change the distribution of offices owned by existing firms. A banking firm may divest some of its banking affiliates or branch offices to concentrate managerial resources in fewer geographic or product markets. For example, at least one multibank holding company sold its rural, agricultural-oriented affiliates. Other banks involved in mergers have divested offices to meet antitrust objections from the Federal Reserve. Merger applications are rarely rejected, but the Federal Reserve must examine potential effects on competition in each local market served by any of the merger partners. If both firms have large market shares in a particular market, the resulting firm may have to sell some of those offices.

Table 7—Banks absorbed as branches of other banks, selected States

State	1972-76[1]	1977-80	1981-83	1984-86	Total
			Number		
Alabama	4	0	51	55	110
Florida	0	201	149	139	489
Georgia	16	9	44	53	122
Missouri	1	2	10	130	143
New Jersey	48	28	32	20	128
New York	69	24	16	19	128
Ohio	29	105	43	46	223
Pennsylvania	58	30	22	39	149
Virginia	26	70	48	36	180
U.S. total	462	637	759	1,098	2,956

Note: Appendix table 7 provides data for 50 States and District of Columbia.
[1] Beginning June 30, 1972.
Source: (*13*).

The Growth of Holding Companies

Bank holding company activity has accelerated in recent years, as banks positioned themselves to provide services through nonbank affiliates of the holding company or to get around State branching restrictions.

Between 1960 and 1986, there were 12,870 cases in which insured commercial banks either received new holding company numbers or became bank affiliates of holding companies after previous lives as independent banks (app. table 8). Every bank holding company is assigned a unique holding company number by the Federal Reserve Board, one that is shared by each of its bank affiliates. Appendix table 8 probably overstates holding company activity because corporate reorganizations and mergers of holding companies sometimes result in the issuance of an entirely new HC number, rather than using one of the old numbers. But State variations should still reflect different economic and legislative environments across States. Fewer than 12,870 different banks obtained new HC numbers, because over the 27-year period some banks appeared on the list more than once. Also, the table does not include an additional 867 cases in which HC affiliates returned to independent status (indicated by a 0 value for the HC number). The latter may reflect divestitures in which MBHC's spun off affiliates to new investors as independent banks or because regulators required the sale of some bank affiliates as a condition for approving mergers.

Over 80 percent of the cases covered by the table came about because an existing bank took on the holding company format for the first time. This action incorporates several situations, such as a chain banking organization that is reorganizing as an MBHC, a mature bank converting to a one-bank holding company (OBHC), or a mature bank that is purchased by an existing or newly established MBHC. New banks forming an OBHC at the time of establishment and new banks started by established MBHC's are generally not part of appendix table 8. As new banks, they lack old values of the holding company number.

The 2,360 records that correspond to changed holding company numbers for banks that were already HC affiliates are presumably typically due to bank mergers and acquisitions, as is some portion of those banks going from independent to holding company status. Though both types of holding company change are at least in part caused by mergers, not all mergers affect this table. Whether the acquiring bank is independent or a holding company affiliate, mergers where one bank acquires a second bank as a branch do not produce records in appendix table 8. These are the absorptions of appendix table 7.

Past, present, and future State branching laws (app. table 4) should be kept in mind when examining appendix table 8. All States show activity by independent banks becoming HC affiliates. We do not yet have the data in a form to separate out OBHC cases from affiliation with MBHC's. But by 1986, over 5,000 banks had organized themselves as one-bank holding companies, thereby expanding their permissible range of activities through the use of nonbank HC subsidiaries. Or they may have been attracted by more flexible financing arrangements available to holding companies, but not directly to banks themselves.

In most States, totals from appendix table 8 give values close to total banks (app. table 3). This situation is coincidental; only about two-thirds of all banks are holding company affiliates, and the table includes banks that no longer exist. But it does help to identify States where holding company activity differed substantially from the norm. For California, the current number of banks far exceeds the count of those that changed holding company number; appendix table 1 makes this clearer by showing that independent banks are the majority. Perhaps many California banks have found the range of activities permitted by State regulatory officials superior to those available for HC affiliates. Also, statewide branching eliminated MBHC expansion as a cause of holding company activity.

Florida is at the other extreme, with HC changes exceeding twice the number of banks now found in the State. Because Florida formerly restricted branching, many Florida banks were acquired by MBHC's. More recently, several large Florida MBHC's were involved in interstate mergers that resulted in new holding company numbers for the affiliated banks. Meanwhile, since Florida liberalized its branching regulations in 1977 to permit statewide branching by merger, many affiliates were absorbed as branches, thus reducing the current count of banks in Florida.

Interstate Banking Activities

Some banks become "interstate" by acquiring a bank firm in another State, while some merely establish a "special purpose" bank that only offers limited services, such as credit cards.

Owning local full-service banks is not the only way to do business in other States. Money center banks have loan production offices in major cities across the country, and their holding companies provide other financial services through subsidiaries in fields such as mortgage banking and consumer finance. Banks market credit cards through the mail, and some try to extend this approach to deposit accounts. Yet, many banks evidently feel that only full-service banks can accomplish their goals for growth and geographic diversification. We use the term "interstate banking" to mean providing a wide range of banking services across State lines.

At the end of 1986, 1,231 commercial banks were affiliated with MBHC's that controlled bank affiliates in two or more States (the "unadjusted" portion of app. table 9). Of these, 320 banks were headquartered in rural counties. Bank branching networks are also important because purchasing one bank with an extensive statewide branching system can provide access to more of a State's markets than buying a dozen unit banks. Of the 17,593 branches associated with interstate banking organizations, 982 belonged to rural banks. However, these data do not accurately depict the importance of interstate banking through 1986 in terms of how many banks and communities were significantly affected.

All bank affiliates of holding companies operating in different States are included in appendix table 9. In some cases where interstate MBHC's had upwards of 70 affiliated banks, closer inspection showed that only one affiliate was in a different State. The exception turned out to be a credit card bank or other special purpose bank in Delaware or one of the other States that permit such entities. Because credit card banks are typically prevented by law from competing with local banks in local markets, this form of interstate banking does little to affect the array of financial services available to rural or urban residents, and deleting such banks from our count of interstate banks probably makes sense. In less extreme cases, say if a large Ohio organization acquires a small Indiana bank, the Ohio bank offices and their customers will probably not notice any change in service availability or price.

Branch counts in the table are derived from bank-level data and, therefore, do not necessarily imply rural or urban branch locations. That is, where permitted by State law, urban banks may have some rural branches and rural banks may have some urban branches. But in appendix table 9, branch data are grouped by headquarter location. The accuracy of these counts improves in States that limit branching to the home county.

"Grandfathered interstate MBHC's" are organizations whose continuing operations were made possible by clauses in subsequent Federal legislation meant to curb the formation of additional interstate bank holding companies. That legislation was ultimately unsuccessful. We also found a few cases of interstate branching in which a bank somehow managed to have a branch in a different State. We included the grandfathered interstate MBHC's in appendix table 9. But, we included interstate branching banks only if the bank also belonged to an interstate MBHC.

Table 8 merely begins the process of coping with the above difficulties in selected States. We recomputed interstate bank and branch counts after ignoring credit card banks and other special purpose banks that seemed not to serve local residents and businesses or to do so in a very limited fashion. Most of the decline in total interstate banks is due to organizations that had no out-of-State affiliates other than these special banks; hence, all their affiliates were dropped. Interstate counts were reduced to 716 banks (264 rural) with 14,014 branches (838 belonging to rural affiliates).

Counting banks involved in interstate banking is a very fluid situation, especially in Texas, which boasts several large MBHC systems because of its large size and unit-banking tradition. We removed all 305 Texas interstate affiliates from adjusted counts of interstate MBHC's because their out-of-state operations were limited to special purpose banks. But, if we recreate the table with more recent data, many reappear because they ran into problems and were purchased by large MBHC's from California, New York, North Carolina, and Ohio or were sold to new investors with FDIC assistance. Culture clashes may lead to real changes in banking services for the affected Texas communities, but the "foreign" banks face competitive pressures from remaining Texas banks that may serve to minimize change.

Other mergers of large regional banks that brought together banks with hundreds of branches in their

respective States may hardly be noticed by branch customers. People in small communities were already served by bank branches or affiliates subject to directives from lead banks in large cities. The regional giants involved in these mergers have flourished in recent years by serving firms and consumers in their own backyards. Thus, we do not anticipate any deterioration in rural financial services. When full nationwide banking takes effect and they must compete directly with money center banks, it is possible that several regionals will forget their roots. But events that occurred during the 1980's should provide sufficient incentive for them to continue to do what they do best.

Table 8—Interstate multibank holding companies, selected States, December 31, 1986

State	Banks			Branches			Assets		
	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total
	Number						*Million dollars*		
California	0	8	8	0	2,304	2,304	0	172,573	172,573
Florida	8	34	42	21	834	855	865	33,275	34,139
Georgia	8	18	26	32	518	550	1,041	27,418	28,458
Massachusetts	3	14	17	14	423	437	409	46,955	47,365
Minnesota	55	47	102	40	78	118	3,558	31,326	34,884
New York	2	25	27	74	2,426	2,500	1,504	557,314	558,818
North Carolina	2	4	6	212	787	999	3,398	41,160	44,558
Ohio	17	32	49	65	985	1,050	2,230	39,496	41,726
Pennsylvania	1	3	4	39	251	290	857	30,442	31,300
Virginia	11	20	31	55	1,041	1,096	1,207	35,907	37,114
U.S. total	264	452	716	838	13,176	14,014	26,638	1,198,227	1,224,865

Note: Includes only multibank holding companies operating full-service banks in two or more States. All offices are assumed to be in the same type of location (rural or urban); thus, these counts are not accurate. Asset data are shown under the type of location for the company's headquarters. Appendix table 9 provides State-level data for 50 States and District of Columbia.

Source: (*14*).

Current Structure of Banking in Rural America

The 8,040 commercial banks serving rural America provide a wide range of services to their markets. Rural banks that are part of urban-based organizations draw on the strengths of their headquarters in extending certain services.

Bank-level data have long been used to describe the operations of banks headquartered in rural areas. But, banks often provide services to clients located beyond the boundaries of the county in which they are headquartered, either through a multicounty branching organization, through correspondent banking relationships (often with other affiliates of an MBHC), through ATM's, or through the mail. Thus, bank-level data provide a distorted view of the structure and performance of banks serving rural communities.

Most banks headquartered in rural counties were small, "independent," one-office banks, and over half had above-average concentrations of farm loans within their loan portfolios at the end of 1986 (table 9). These data support the commonly held perception that rural communities are generally served by small, agriculturally oriented banks. This perception is true for many rural communities, particularly those in the Midwest, but a different picture evolves when multicounty branching and multibank holding company affiliations are taken into account. Available branch-level data give a better, although far from complete, picture of the structure of rural banking systems.

On June 30, 1986, 7,663 FDIC-insured commercial banks were headquartered in nonmetro areas. (Metro designations are based upon MSA definitions as of 1983). However, 8,040 commercial banks had one or more offices in rural America. That is, in addition to banks headquartered in nonmetro counties, 377 urban-based banks had branch offices in one or more nonmetro counties. These urban-based banks operated a total of 3,693 rural branch offices, accounting for 19 percent of all regular rural banking offices. Most of these banks were not statewide branching organizations--over 50 percent had branch offices in only one rural county; less than 20 percent had branches in five or more rural counties.

Urban-based banks with rural branches tend to be much larger, on average, than rural-headquartered banks (table 9). The average assets jump from $44 million for rural banks to $147 million when urban-based banks with rural branches are considered. The unweighted averages of loan categories within the banks' loan portfolios change little, but the overall ratios (combining the portfolios of all banks in that category) shift substantially when urban-based banks are included. For example, the importance of agricultural loans drops precipitously while the relative size of commercial and industrial loans within the "rural" bank loan portfolio increases dramatically when portfolios of urban-based banks with rural branches are included in the calculations.

Much of the urban-based banks' activities are carried out in urban areas, so their significance for rural borrowers is difficult to judge from these figures. The loan portfolios and lending expertise of a bank's rural branches may look very different from those of its urban branches. Nonetheless, branch offices would probably take advantage of the lending expertise of the entire bank to evaluate loan applications. Thus, loan portfolio data on all rural lenders may give a better picture of the potential performance of the rural credit delivery system than has been presented to date based solely on data for rural-headquartered banks.

The presence of MBHC's is an additional complication to consider when assessing the structure of the rural banking system. Detailed operating statistics are available for each MBHC affiliate, but MBHC affiliation presumably makes a bank behave differently than it would if it were independent. For example, MBHC affiliates may be able to draw upon the resources of the entire HC to meet the credit needs of their customers. Thus, even rural-headquartered banks may behave much like rural branches of large banks if they are affiliated with large MBHC's. If we consider MBHC affiliates as "branches" of larger banking organizations, rural America was served by 6,830 bank organizations in 1986--6,219 "independent" banks and 611 MBHC's controlling 1,821 "rural" bank firms operating 6,492 rural bank offices (34 percent of all bank offices located in nonmetro counties).

Bank organizations serving rural communities far exceed the average size of the individual banks which partially make up these organizations (table 9). MBHC data aggregate information from many rural banks into one bank organization, and MBHC's draw in many bank affiliates that do not directly serve rural America. Thus, loan portfolio ratios shift in the same direction as when we included urban-based banks with rural branches. The loan-to-asset ratio and the relative size of commercial and industrial loans within the loan portfolio increase further, and remaining loan category shares decline

further, when MBHC's with one or more rural offices are included in the calculations.

Appendix table 10 shows the extent to which rural banking offices are controlled by urban-based banking organizations (see appendix B for a description of what constitutes an urban-based bank organization). In those States that prohibit or severely restrict branching, control comes primarily through MBHC's. Conversely, in States with long traditions of statewide branching, bank organizations assert control over rural banking offices primarily through branches. Furthermore, the proportions of rural offices involved are much greater in the latter cases. Many States fall somewhere between these extremes, either because branching authority has geographic limits or liberalizing legislation is too recent to take full effect. In such cases, holding company affiliates supplement branching.

Table 9—Banks and bank organizations with rural offices by total offices, assets, loan-to-asset ratios, and loan proportions, June 30, 1986

Bank firm characteristics	Banks headquartered in a rural county	Banks with one or more offices in a rural county	Bank organizations with one or more rural offices[1]
		Number	
Banks or banking organizations	7,663	8,040	6,830
Independent banking firms	6,060	6,219	6,219
Rural bank offices	15,362	19,055	19,055
		Million dollars	
Average amount of bank assets	44.0	147.2	281.2
		Percent[2]	
Loans/assets ratio	50.0/52.4	50.0/62.4	50.0/65.8
Proportion of loan portfolio in:			
Agricultural loans	26.2/16.4	25.2/ 5.1	26.3/ 1.4
Commercial and industrial loans	19.7/22.4	20.0/31.7	20.0/38.4
Residential (1-4 family) loans	19.8/21.4	19.8/14.8	19.4/10.8
Consumer loans	21.5/22.5	21.7/20.8	21.6/19.7

Note: Includes all U.S. commercial banks insured by the FDIC reporting nonzero deposits and loans and their regular banking offices.

[1] A bank organization is an independent bank firm (not an MBHC affiliate) or an MBHC.

[2] The first percentage represents the unweighted average for each category. The second percentage is the overall ratio based on the portfolios of all rural banks combined.

Source: (*10, 14*).

The Changing Structure of Rural Banks and Bank Markets

Fewer banking firms serve rural communities now, but there are more rural bank offices.

Legislation affecting intrastate bank branching or MBHC activity took effect in 28 States during 1980-86, together with much of the interstate banking legislation passed to date (*1*). The banking systems of only seven States were totally unaffected by changes in State regulations governing bank structure during these 7 years. Thus, developments in the structure of rural banking since 1980 should reflect, to some extent, geographic and deposit deregulation. The banking industry has only begun to adjust to recent changes in Federal and State banking regulations, but definite trends are beginning to emerge.

During 1980-86, the number of rural bank offices increased by 11 percent, while the number of banking firms operating in rural America declined (table 10). The 1980's generally saw the rural banking system become less geographically specialized. The number of single-office banks ("unit banks") dropped sharply as banks took advantage of liberalized branching laws to broaden their geographic markets and as MBHC's acquired previously independent banks. At the same time, the number of multicounty banking firms operating in rural America increased by over 50 percent, with most of this growth fueled by rural-based banking firms. The number of urban-based banking firms operating in rural America did not increase substantially, but those accounted for much of the growth in rural bank offices. By 1986, urban-based banking organizations controlled 28 percent of rural bank offices.

Based on trends during 1980-86, neither of the extreme outcomes many feared would result from bank deregulation seems to have developed. Large urban-based banking firms are not driving rural banking organizations out of business, nor are they abandoning rural markets. Through mergers or new-office branching, urban-based banking firms have substantially increased their presence in rural America. But rural-based banking firms have also shown the ability to adapt to changing market and regulatory environments.

The effects of interstate banking compacts began to show up in the mid-1980's. In 1980, only 10 interstate banking firms operated offices in rural counties. These banking firms had interstate branching or MBHC networks operating before restrictions were imposed by the McFadden Act of 1927 and the Bank Holding Company Act of 1956. By 1986, 51 interstate banking firms operated 2,347 bank offices in rural America. The importance of interstate banking organizations will probably grow over the next several years as nationwide banking triggers go into effect in more States.

Table 10—Banking firms with rural offices by geographic coverage, size, and lending experience

Banking firm characteristics	1980		1986	
	Firms	Offices	Firms	Offices
		Number		
Total	7,658	17,154	6,830	19,055
Local (intracounty) firms	6,892	10,777	5,663	9,459
Single-office banks	4,686	4,686	3,595	3,595
Multioffice firms	2,206	6,091	2,068	5,864
Multicounty banking firms	766	6,377	1,167	9,596
Urban-based firms	340	3,854	383	5,327
Interstate firms	10	556	51	2,347
Asset size of banking firms:				
Small (under $100 million)	7,196	11,597	6,001	10,051
Medium ($100-$1,000 million)	330	2,564	648	3,741
Large (over $1 billion)	132	2,993	181	5,263
Banking firms with expertise in:				
Agricultural lending	3,763	5,084	2,979	4,350
Commercial and industrial lending	666	2,582	803	4,423

Note: The table includes those banking firms with at least one rural office. Only rural bank offices are tabulated.
Source: (*10*, *14*).

Changing Rural Bank Services

Bank deregulation has increased the number of rural bank offices overall, but some communities still have only one or two banks.

Faced with credit needs, rural entrepreneurs, small businesses, and even governments typically limit their search to a fairly small group of financial institutions--those serving their community. The concept of banking markets is very fluid (*17*). The geographic size of the credit market facing rural firms varies with the size, type, and age of the firm, the type of credit needed, and the suppliers of credit. We adopted the county as a convenient definition of the local rural market.

The distribution of commercial banks among rural communities, and how these localized markets are affected by deregulation, directly affects rural development prospects. Table 11 describes the distribution of metro and nonmetro counties by local banking market characteristics.

In 1980, the average nonmetro county was served by 4 banking firms, through 7 banking offices, compared with 11 banking firms operating 46 offices in the typical metro county. Changes in the structure of the banking system during the 1980's have not affected the average number of banking firms competing in local markets, as many had feared, but the average number of bank offices has risen roughly 11 percent in nonmetro counties and 15 percent in metro counties. Nonetheless, 30 percent of nonmetro counties were served by only one or two banking firms in 1986, leaving borrowers vulnerable to oligopolistic lending behavior. Relatively few rural borrowers enjoy the range of banking service providers that the typical urban borrower faces.

Deregulation has not directly affected the number of banking firms in most rural markets, but it has altered the structure of many local banking systems in important ways. In 1980, over half of the rural counties were served by banking systems that were entirely locally based, leaving them susceptible to credit problems when the local economy experienced a downturn. While arguments can be made for and against the presence of "outsider" controlled bank offices in rural America, a borrower is probably best served by having the choice of doing business with a local community bank or a larger banking organization. Viewed from this perspective, many rural borrowers found their choices widening during the 1980's as nonlocally based banking firms moved into more rural markets. The percentages of rural counties served by multicounty banking firms, urban-based firms, and large firms (those with total assets in excess of $1 billion) all increased during 1980-86. The percentage of rural counties served exclusively by nonlocally based firms rose from 10 percent in 1980 to 14 percent in 1986.

An office of a large banking organization can change the overall character of a rural banking market, but the development process is affected more by the behavior of individual local financial institutions than by the average characteristics of all such institutions. If a borrower can find one lender willing and able to meet his or her credit needs at an acceptable price, the "average" behavior of rural lenders is unimportant. Some individuals argue that rural firms do not have access to lenders willing to evaluate loan applications for innovative development projects. Urban firms have access to a larger selection of banks having more experience in business lending, the argument goes, thus skewing innovative investment toward urban areas.

Developments during the 1980's may offer some hope for rural areas. Both the number of rural banking firms with expertise in commercial and industrial lending (table 10) and the number of rural counties served by such banking firms have increased (table 11). This trend is partly because commercial banks as a group increased their commercial and industrial lending over this period. But the movement of larger, urban-based banking firms into more rural markets also influenced this trend. The presence of a commercial and industrial lender in a community does not, by itself, guarantee that loan officers will fairly evaluate such loan requests, but the firm's expertise and commitment to business lending should help the loan evaluation process.

The number of rural counties being served by one or more "experienced" commercial and industrial lenders has grown during the 1980's, but most nonmetro counties are still without such a lender. An average of only two banking firms with such commercial and industrial lending experience were in operation in nonmetro counties in 1986, compared with seven in the typical metro county. Thus, even those rural markets with an experienced lender tend to have few local alternatives should that lender turn down a loan application. The options are to go to an inexperienced lender, who may be reluctant to accept the added risks involved in making an unfamiliar loan, or go to another bank market, with the added inconvenience, cost, and risk of rejection that tends to be associated with going too far from home for a loan.

Table 11—Rural and urban county banking markets by number and type of banking firms

Bank market characteristics	Metro		Nonmetro	
	1980	1986	1980	1986
		Number		
Counties with one or more bank offices	713	713	2,356	2,362
Banking firms per county	10.6	11.0	4.1	4.1
Regular bank offices per county	45.6	52.3	7.3	8.1
		Percent		
Counties served by:				
1-2 banking firms	5.6	4.9	31.1	30.1
3-5 banking firms	24.0	23.1	45.8	45.9
6-9 banking firms	31.4	33.0	18.9	19.7
10 or more banking firms	39.0	39.0	4.1	4.3
Counties served by:				
Only locally based firms	25.4	7.4	53.4	33.0
Only nonlocally based firms	5.6	9.4	9.9	14.1
Only urban-based firms	78.1	62.7	4.2	5.2
A combination of local and nonlocal banking firms	69.0	83.2	36.7	52.9
Counties served by one or more:				
Multicounty banking firms	76.7	94.2	49.8	71.0
Urban-based banking firms	99.7	99.7	35.4	45.1
Large banking firms	65.8	83.2	28.9	42.5
Agricultural lending firms	26.2	20.3	56.7	47.0
Commercial and industrial lending firms	65.4	81.1	33.4	47.4

Note: In 1986, 1 metro county (Charles City, VA) and 22 nonmetro counties were without a regular commercial bank office. Total percentages may not sum to 100 due to rounding.
Source: (*10, 14*).

Rural Banking in a Deregulated Environment

The numbers of U.S. banks and banking firms will continue to decline, but the Nation will maintain many more independent banking organizations than other industrial nations, and financial services will remain available in rural markets.

As geographic deregulation proceeds, the number of banks will continue to fall, and measures of national- and State-level concentration of bank assets will increase. Yet, geographic deregulation has the potential for being relatively unnoticed in much of rural America. The number of banks in a State is less critical than the number serving a particular community, and the latter counts should not decline dramatically in many rural areas.

Rural financial markets are probably much more integrated into national markets than was the case 10 or 20 years ago, particularly on the liability side. Because people can place deposits by mail with money market mutual funds or the country's largest banks, an increase in New York City interest rates will be noticed in rural Iowa. But that is not nearly sufficient to support a conclusion that New York banks are going to purchase banks in every Iowa town.

Anecdotal evidence suggests that much of the interstate merger action to date has involved large banks that wish to create regional giants able to compete with, and remain independent of, the money center banks. The component firms may have many rural branches or affiliates, but in such cases rural consumers and businesses are merely trading in one set of outside lenders for another. Local concentration is not affected unless the merger partners both serve the same rural market. This situation will occur at times, but then antitrust merger guidelines kick in, and the new bank may have to spin off one of the local banks to maintain competition.

A February 1987 Federal appeals court ruling may hasten the 20-year trend toward more liberal intrastate bank branching (app. table 4). The court upheld an earlier decision by the Comptroller of the Currency to let Deposit Guaranty National Bank of Jackson, Mississippi, start a branch office at a location not permitted by Mississippi law. The Comptroller argued that banks were at a disadvantage to S&L's, which now have powers very similar to banks and can branch anywhere in Mississippi. Although the Supreme Court refused to set aside the decision, and most States permit statewide branching by S&L's, the ruling does not automatically invalidate existing legislation as it applies to similar applications in other States. The Cornptroller received 100 similar applications and approved 44 by mid-1988.

Michigan passed a statewide branching law in response to several pending applications. Arkansas negated the Comptroller's decision by uniformly restricting branching by banks and S&L's. Other States, including Illinois and Texas, have threatened legal action. Thus, the ultimate significance of the Deposit Guaranty case is not yet known. But whether or not court decisions or Federal legislative and regulatory actions initiate nationwide branching, further liberalization of branching laws at the State level is expected for the future.

California, with large banks with statewide branching networks dominating the State, does not necessarily serve as the role model for States currently liberalizing their banking laws. California's banking system developed under economic and regulatory conditions that no longer exist. Deposit deregulation reduced the incentive to maintain large branching networks, and mature banking systems that developed under unit- or limited-branching regulations produce strong local-market competitors for any bank attempting to build a statewide branching network. Thus, the banking systems of new and mature branching States may approach a middle ground, but considerable interstate variability will probably endure for the foreseeable future.

What can we expect as banking systems adjust to liberalized branching laws? The count of bank organizations serves as a crude proxy for one aspect of the potential decline in numbers of banks if statewide branching becomes universal. The sum of the numbers of independent banks and bank holding companies active in each State represents the number of banks that would exist if each MBHC converted all of its affiliates into branches of the MBHC's lead bank. Based on 1986 bank structure, the number of banks would have declined by 23 percent (to 10,846) nationwide had MBHC's been able and willing to consolidate their bank affiliates.

Liberalized branching also reduces bank numbers by inducing mergers of currently unrelated banks. The declines are potentially much larger than from holding company consolidations. Comparing counts of banks and total bank offices in statewide and very limited branching States suggests why some

analysts predicted drastic reductions in the number of banks when deregulation was first picking up steam. On the other hand, entrepreneurs will always start new banks in dynamic markets and managers of banks merged out of existence sometimes charter new banks in the same area. In terms of where most businesses and consumers get the bulk of their financial services, new and other small banks may be largely irrelevant in markets dominated by several large branch banks. But small local banks remain serious competitors in many rural communities.

The distribution of banks by age is one way of summarizing the structural changes in banking that we discussed above (app. table 11). Those States with large proportions of banks established after 1972 include some States that allow statewide branching. In other States, most banks have been around since at least 1972. This latter group, however, is not dominated by States that have liberal branching laws.

Thus, the form of branching may be more marginal than critical in issues such as local bank market concentration and failing banks. Branching does not imply, and is not a prerequisite for, rapid economic growth. Rather, a growing economy provides an environment in which entrepreneurs find opportunities for starting new banks, regardless of prevailing branching laws. Branching may help banks to grow large, but the diversification made possible by large size does not make banks immune to problems. And, restrictive branching does not prevent the development of large banking organizations.

Technological change and deregulation also appear to have made the financial environment less conducive to comprehensive branch networks. Some branches are being eliminated. Certain financial services can be handled by ATM's, by phone, or through the mail. If community banks choose to remain independent, regional and money center banks are not going to rush in with new branches to compete for their customers.

None of the above comments apply uniformly; banking structures and economic conditions are too diverse across States and regions. Nonlocal banking organizations already have a strong presence in rural markets in some States because of past branching and MBHC activity. Banks in areas with fast-growing economies will still prove inviting targets for acquisition by outside banking organizations that wish to compete in those markets. But, even if the total number of banks declines by as much as 4,000-5,000, the United States will maintain many more thousands of independent banking organizations than are found in other industrial nations. And any such decline may not be noticed in many rural markets.

References

(1) Amel, Dean F. *State Laws Affecting Commercial Bank Branching, Multibank Holding Company Expansion, and Interstate Banking*. Mimeo. Board of Governors of the Federal Reserve System, 1988.

(2) Auerbach, Robert D. *Money, Banking, And Financial Markets*. New York: Macmillan Publishing Co., 1982.

(3) *Banking Week*, various issues.

(4) Barkley, David L., and Glenn T. Potts. "Will Branch Banking Increase Credit and Competition in Rural Communities?" *Rural Development Perspectives*, Vol. 1, Issue 3, June 1985, pp. 26-30.

(5) Cargill, Thomas F., and Gillian G. Garcia. *Financial Reform in the 1980's*. Stanford, CA: Hoover Institution Press, 1985.

(6) Conference of State Bank Supervisors. *A Profile of State-Chartered Banking*. 11th ed. Washington, DC, 1986.

(7) Dunham, Constance R. "Interstate Banking and the Outflow of Local Funds," *New England Economic Review*. Federal Reserve Bank of Boston, Mar./Apr. 1986, pp. 7-19.

(8) Elliott, J. Walter. *Money, Banking, and Financial Markets*. St. Paul, MN: West Publishing Co., 1984.

(9) Federal Deposit Insurance Corporation. *1987 Annual Report of the Federal Deposit Insurance Corporation*. 1988.

(10) _____. *Summary of Deposits*, unpublished data tapes. Various years.

(11) Federal Reserve Bank of Philadelphia, Research Department. "Summary of Federal Legislation," *Banking Legislation and Policy*, Vol. 8, No. 3, July-Sept. 1989, pp. 2-5.

(12) Federal Reserve System. *74th Annual Report of the Board of Governors of the Federal Reserve System*. Washington, DC, 1988.

(13) _____. *Bank Structure*, unpublished data tapes. 1987.

(14) _____. *Report of Condition* and *Report of Income*, unpublished data tapes. Various quarters.

(15) Gajewski, Gregory R. "Outlook for Bank Failures," *Agricultural Outlook*, AO-141, May 1988, pp. 23-25.

(16) Luckett, Dudley G. *Money and Banking*. 3d ed. New York: McGraw-Hill Book Co., 1984.

(17) Rogers, G., R. Shaffer, and G. Pulver. "Identification of Local Capital Markets for Policy Research," *The Review of Regional Studies*, Vol. 18, No. 1, Winter 1988, pp. 55-66.

Appendix A

Federal and State Banking Legislation[4]

Federal action as a response to State legislative activity is not a new phenomenon. This appendix reviews major Federal banking legislation enacted since the Civil War. Appendix table 4 summarizes recent State branching legislation.

The 1863 National Currency Act, amended in 1864 as the National Bank Act, created the Comptroller of the Currency office in the Treasury Department to charter private national banks. The act established minimum capital and reserve requirements for national banks and permitted only national banks to issue the new national bank notes that would replace the existing 10,000 different bank notes.

The Federal Reserve Act of 1913 established the first true central bank. Unlike the First and Second Banks of the United States, the Federal Government could not own shares. Membership was required for national banks and optional for State banks. The Federal Reserve System was decentralized via 12 district banks and given rules to handle its monetary control functions. Even today, the Federal Reserve maintains considerable discretion in controlling the money supply.

The National Bank Act helped national banks to quickly dominate U.S. banking, with 90 percent of bank assets in 1869. But because that law did not mention branching, Comptrollers rejected applications for branches from national banks. Some States allowed State-chartered banks to have branch offices, and by 1927 national banks were down to a 39-percent share of bank assets.

The McFadden Act of 1927 let national banks compete more fairly by authorizing home town branching in States that gave similar powers to State-chartered banks. The 1927 Act also expanded the lending and deposit powers of national banks and prohibited interstate banking by all banks unless a State permitted it.

The Banking Act of 1933 established deposit insurance, with the Federal Deposit Insurance Corporation (FDIC) beginning operations on January 1, 1934. In what later became known as Regulation Q, the 1933 Act prohibited interest on demand deposits and instituted ceiling rates for time and savings deposits. The McFadden Act's branching clause was extended to let national banks in each State follow whatever branching regulations governed State-chartered banks in that particular State. Bank holding companies (BHC's) were brought into the regulatory framework, but the regulations were weak. The regulations covered only BHC's that owned banks that were members of the Federal Reserve and used a strict definition of BHC (a corporation controlling a majority of stock, voting shares, or election of directors of a member bank). Most one-bank HC's were exempted 2 years later.

The Home Owners Equity Act of 1933 created savings and loan associations (S&L's) during the Great Depression. That act restricted nonmortgage use of funds by S&L's to minimize threats to their soundness and tried to increase funds dedicated to housing.

The Glass-Steagall Act of 1933 strived to minimize credit risk by separating banking from commerce. That is, banks could not engage in activities such as the selling or underwriting of securities or the selling of insurance. Congress tried unsuccessfully in 1988 to repeal or moderate this provision and may try again in 1990. States and Federal regulatory agencies may accomplish this goal if Congress fails to produce legislation. Glass-Steagall also limited insider loans and loans to individuals and set regulations governing acceptable collateral.

The Bank Holding Company Act of 1956 was the first major Federal legislation covering BHC's. By defining a BHC as an organization with 25-percent ownership of at least two banks, the act initially was limited to MBHC's. The Federal Reserve was given supervision over all BHC's (not just those with affiliates that were members of the Federal Reserve), including approval before acquiring additional banks or nonbank firms "closely related to the business of banking." MBHC's that already owned banks in more than one State received permission to keep those affiliates, but State approval was required for future interstate purchases of banks. Most States recently passed legislation taking advantage of this loophole, but in 1956 the act effectively prevented additional interstate mergers. The 1966 amendments widened the definition of holding company to include organizations such as registered investment companies and nonbusiness long-term trusts. The Douglas Amendment of 1970 extended coverage to OBHC's and more narrowly defined nonbanking activities of BHC's.

The Bank Merger Act of 1960, its 1966 amendments, and the 1963 Supreme Court decision in the Philadelphia National Bank Case gave Federal banking regulators responsibility for bank mergers and required them to consider competitive effects. The Change in Bank Control Act of 1978 increased Government involvement by stating that a Federal

[4] This section draws on material from (2, 5, 16) and the Competitive Banking Act of 1987.

banking agency must approve any change in control of a bank, whether or not HC's are involved. In particular, chain banks were affected.

The Interest Rate Control Act of 1966 extended Regulation Q deposit interest rate ceilings to S&L's, mutual savings banks, and uninsured banks. To simplify the gathering of the deposits needed to provide mortgage credit, S&L's were assigned higher ceilings than were banks.

The Financial Institutions Regulatory Act of 1978 gave the FDIC and other financial institution supervisory agencies additional powers: civil monetary penalties, cease and desist orders, removal and suspension of insiders owning significant bank stock, and approval of foreign branches of State banks that were not FDIC members. Previous powers had been limited to examining insured banks, prescribing various rules and regulations, vetoing some mergers and consolidations, and subpoenaing officers, employees, books, and records. Subsequent events have made this law seem both timely and ineffective.

The Depository Institutions Deregulation and Monetary Control Act of 1980 (DIDMCA) was part of a more general deregulation movement. This law phased out regulation Q interest rate ceilings on time and savings accounts, authorized NOW (negotiable order of withdrawal) accounts, and eliminated State usury limits on many loan types and State restrictions on deposit rates (the law gave States 3 years to reimpose usury limits on loans). The maximum account protected by Federal deposit insurance was raised from $40,000 to $100,000. S&L's gained new powers (such as making commercial real estate and consumer loans) that made them look much like banks. DIDMCA phased in uniform reserve requirements for all depository institutions, eliminating the member/nonmember issue and including nonbank financial institutions, and made Federal Reserve services (discount window, check clearing) available to all depository institutions at uniform rates.

The Depository Institutions Act of 1982 introduced the money market deposit account so that financial institutions could better compete with money market funds, removed Regulation Q differences between banks and other depository institutions, and extended or enhanced the powers of S&L's and savings banks in areas such as commercial loans and variable rate mortgages. By overriding State restrictions on enforcing due-on-sale clauses in mortgage contracts, Congress tried to help thrifts get rid of some long-term, low-rate mortgages. An emergency 3-year package of new powers (net worth certificates, financial assistance, formerly forbidden combinations of mergers and acquisitions that crossed State lines or industries, and charter conversion) helped FDIC and FSLIC cope with failing and troubled firms. Restrictions on loan size to a single borrower, insider loans, and real estate loans were relaxed for national banks.

The Competitive Equality Banking Act of 1987 (CEBA) recapitalized FSLIC, allowing it to raise almost $11 billion to close insolvent S&L's, but those funds quickly proved insufficient. And a 1-year moratorium preventing banks from undertaking new nonbanking powers in areas of real estate, securities underwriting, and insurance did not give Congress enough time to rewrite Glass-Steagall. CEBA also eliminated the nonbank bank loophole by redefining "bank" in the 1956 Act, required that depositors have their funds made available to them within specified timeframes, and helped small agricultural banks survive by letting some amortize loan losses over 7 years. If State regulators agreed, interstate purchases of failing, large banks were allowed. CEBA addressed both the future prospects and present problems of thrifts, calling for stricter regulations in areas such as appraisals, generally accepted accounting procedures, and minimum capital standards, while simultaneously helping weak S&L's by promoting the restructuring of troubled debt and capital forbearance when local economic conditions depress operating capital.

The Financial Institutions Reform, Recovery, and Enforcement Act of 1989 provided considerably more resources (including $55 billion of borrowing authority) to handle insolvent S&L's (*11*). It also restructured the regulatory framework in an attempt to prevent a repeat of this financial disaster. The Federal Home Loan Bank Board and its insurance arm (Federal Savings and Loan Insurance Corporation) were abolished. Supervisory aspects of those agencies were moved into the new Office of Thrift Supervision, but as part of the Department of the Treasury rather than an independent agency. The FDIC received responsibility for insuring both S&L's and banks, through the new and recapitalized Savings Association Insurance Fund and the renamed and separately funded Bank Insurance Fund, respectively. The Resolution Funding Corporation, Resolution Trust Corporation, and the latter's Oversight Board were established to manage, sell, and liquidate insolvent thrifts and the hundreds of billions of dollars in thrift assets that were expected to be left behind in this process. The regional Federal Home Loan Banks remained intact, but in their role as lenders to thrifts (and to qualifying banks and credit unions) rather than as regulators, and to be overseen by a new independent agency called the Federal Housing Finance Board. The FDIC also preempts State laws in determining permissible activities for State-chartered thrifts. S&L's cannot make additional investments in junk bonds, and undercapitalized thrifts (and banks) can no longer obtain brokered deposits or offer interest rates on deposits much higher than those paid by their competitors.

Appendix B

Data Sources and Concepts

We used data from three major sources for this report. The primary data source for information on changes in the structure of statewide banking systems was the *IMS Bank Structure* file maintained by the Federal Reserve Board. This file begins at the end of 1959 and is updated daily with new information whenever there is a change pertaining to one of the pieces of nonfinancial information (such as bank name, holding company number, or membership in the Federal Reserve System) used to describe a bank (or bank branch). This file also tracks various transactions that can befall banks (such as openings of new banks or mergers).

The *IMS Bank Structure* database is organized so that one can get either a snapshot (current values of structure items for all banks on a designated date) or a list of all occurrences satisfying specified change or transaction criteria during a given period. We first took a snapshot for the end of 1986; it included all banks active some time during 1960-86. This information was matched to four other data extracts based respectively on change in holding company number, change in office status, banks absorbed as branches of other banks, or any sort of transaction. In each case, we specified the 1960-86 timeframe, but the absorption variable was available only as of June 30, 1972. Bank failures should and do show up in the structure file, but FDIC information was more easily obtained and more accurate.

Our analysis of rural banking systems required the merging of two separate files. We derived location of bank offices from FDIC's yearly *Summary of Deposits* reports (*10*). However, because information on assets and liabilities is not available for individual bank offices, we used the aggregate data for the banking firm, as reported in the Federal Reserve Board's *Reports of Condition and Income*, to describe rural banks' structural and operational characteristics (*14*). Thus, the smallest branch office is endowed with the characteristics of the entire banking organization.

To describe the basic character of the rural banking system, we have further classified banking firms according to their geographic size (local firms serving only one county, multi-county firms, and interstate banking firms), their base of operations (urban-based bank organizations, for example), and their lending expertise. The latter two classifiers need some explanation. Whether a banking firm is urban-based or not depends upon its organizational structure and the location of its assets. Non-MBHC banks headquartered in metro counties are considered to be urban-based. For MBHC organizations, the headquarters of the lead bank (an affiliate with assets over twice the size of any other affiliate) determines whether the banking firm is urban-based or not. For MBHC's with no lead bank, urban-based firms are those with more than two-thirds of their total assets held by affiliates headquartered in metro areas. Note that this definition does not consider the rural branches of all MBHC affiliates headquartered in urban areas to be urban-based. The geographic character of the entire MBHC determines whether a specific branch is affiliated with an urban-based bank organization.

Banks with expertise in agricultural lending and commercial and industrial (C&I) lending are also of interest. Because there is no commonly accepted measure of a bank's lending expertise, we have adopted rather arbitrary proxies. A bank is assumed to possess expertise in making agricultural loans if 25 percent or more of its loan portfolio is in farm loans, as FDIC defines an agricultural bank. A banking firm possesses C&I lending expertise if more than 19 percent of its total asset base is in C&I loans (more than one standard deviation above the mean for banks with less than $500 million in assets in 1980).

Appendix table 1—Branching and bank holding company affiliation by State, June 30, 1986

Branching law/State	Banks headquartered in State	Banks with--			MBHC restrictions[1]	Banks affiliated with--		
		No branches	Intra-county branches	Inter-county branches		No HC	OBHC	MBHC[2]
	Number	*Percent*			*Type*	*Percent*		
Unit banking	3,491	82	17	1	NA	30	33	37
Colorado	460	78	22	1	none	21	28	50
Kansas	619	77	23	0	1,2	29	63	9
Montana	169	86	14	1	none	22	31	47
North Dakota	177	54	30	16	none	25	48	27
Texas	1,957	85	15	0	none	34	24	42
Wyoming	109	97	3	0	none	20	25	55
Very limited branching	5,524	47	46	7	NA	33	37	30
Arkansas[3]	258	33	64	2	1	36	45	19
Georgia	371	36	55	9	2	39	30	31
Illinois[3]	1,226	54	43	3	none	35	34	31
Kentucky	331	27	72	2	2	35	45	21
Louisiana	301	27	70	3	2,3	38	51	11
Michigan	354	14	48	38	none	34	12	54
Minnesota[3]	732	64	29	7	none	23	50	27
Missouri	639	45	52	3	1	27	32	41
Oklahoma[3]	529	68	29	3	1,2	33	55	12
West Virginia[3]	215	41	55	4	1	53	15	32
Wisconsin[3]	568	54	34	12	none	33	28	39
Less limited branching	1,753	34	48	18	NA	37	39	25
Indiana[3]	365	24	70	7	1	35	52	13
Iowa[3]	616	52	37	10	1	26	50	25
New Hampshire[3]	57	18	40	42	1	33	26	40
New Mexico	95	27	65	7	none	22	34	44
Ohio[3]	311	26	48	26	none	51	18	31
Pennsylvania	309	23	40	38	1	50	26	24
Statewide (by merger)	1,644	46	43	12	NA	37	40	23
Alabama[3]	233	42	47	11	none	41	40	19
Florida[3]	383	32	61	7	none	37	27	36
Nebraska[3]	443	75	20	5	1,2	29	59	12
South Dakota	133	64	17	20	none	41	37	23
Tennessee[3]	284	24	64	12	1,3	32	45	23
Virginia	168	26	39	36	none	61	13	26
Statewide branching	1,750	24	43	32	NA	49	31	19
Alaska	16	13	31	56	none	38	31	31
Arizona	53	42	40	19	none	45	51	4
California	445	34	40	26	none	58	34	8
Connecticut	57	30	53	18	none	56	21	23
Delaware	27	67	11	22	none	33	15	52
District of Columbia	19	26	74	0	none	32	53	16
Hawaii	22	23	27	50	none	59	18	23
Idaho	25	16	28	56	none	52	20	28
Maine	24	4	33	63	none	33	29	38
Maryland	90	12	51	37	none	53	13	33
Massachusetts[3]	99	8	68	24	none	24	26	49
Mississippi[3,4]	146	16	50	34	4	48	51	1
Nevada	16	25	31	44	none	56	25	19
New Jersey[3]	122	9	43	48	1	30	30	39
New York[3]	191	26	35	39	3	43	29	28
North Carolina	65	18	38	43	none	69	25	6
Oregon	66	29	44	27	none	64	21	15
Rhode Island	14	7	50	43	1	29	50	21
South Carolina	75	20	43	37	none	60	36	4
Utah	58	29	34	36	none	50	29	21
Vermont	25	12	36	52	none	20	44	36
Washington[3]	95	23	58	19	none	58	27	15
Total	14,162	51	38	11	NA	35	36	29

NA = Not applicable.

[1] Multibank holding company (MBHC) restrictions: 1 = limits HC size, 2 = prohibits creation of new affiliates and acquisition of banks less than 5 years old, 3 = geographic restrictions on HC operations, 4 = totally prohibits MBHC's.

[2] Includes HC's with interstate affiliates. [3] Liberalized bank branching laws passed since 1960. See also figures 1 and 2.

[4] Mississippi forbids MBHC's within the State, but one Mississippi HC operates a Nebraska credit card bank in addition to its one Mississippi bank affiliate.

Source: (*10*).

Appendix table 2—Interstate banking legislation

Interstate banking not permitted: Hawaii, Iowa, Kansas, Montana, North Dakota (a 1987 law permits a grandfathered interstate holding company to sell its North Dakota affiliates to holding companies in other states).

Regional reciprocal: Alabama (1987), Arkansas (1989), Connecticut (1983), District of Columbia (1985; national open in 1986 for specified large investments), Florida (1985), Georgia (1985), Maryland (1985), Massachusetts (1983, new allowed), Minnesota (1986, new allowed), Mississippi (1988), Missouri (1986), New Hampshire (1987, new entry permitted), North Carolina (1985), South Carolina (1986), Tennessee (1985, new entry forbidden but some new expansion permitted after initial acquisition), Virginia (1985), Wisconsin (1987, forbids new entry).

National reciprocal: California (1991; regional in 1987), Delaware (1990; regional reciprocal in 1988; new credit card banks in 1981), Illinois (1990; regional reciprocal without new entry in 1986), Indiana (1992; regional reciprocal in 1986), Kentucky (1986; regional as of 1984 with new prohibited), Louisiana (1989; regional in 1987 but no new entry), Michigan (1988; regional in 1986, new permitted), Nebraska (1991; regional reciprocal in 1990), New Jersey (1988; regional reciprocal in 1986 with new entry), New York (1982, new allowed), Ohio (1988; regional reciprocal in 1985, with new entry also on a reciprocal basis), Pennsylvania (1990; regional in 1986, new allowed), Rhode Island (1988; regional reciprocal in 1984), South Dakota (1988, with new entry; two new and one acquired credit card banks in 1983), Vermont (1990; regional reciprocal 1988), Washington (1987), West Virginia (1988, does not allow new entry).

National open: Alaska (1982), Arizona (1986 with new in 1992), Colorado (1991 with new entry in 1992; regional reciprocal in 1988), Idaho (1988, forbids new entry; regional reciprocal in 1985), Maine (1984; national reciprocal in 1978), Nevada (1989 with new in 1990; regional reciprocal in 1985), New Mexico (1990; new in 1992), Oklahoma (1987, prohibits new entry), Oregon (1989; national reciprocal interstate branching in 1985; regional open in 1986), Texas (1987), Utah (1988; regional reciprocal in 1984), Wyoming (1987).

Note: States are grouped by legislation on the books, but in some cases not yet in effect.
Source: (*1*, *3*).

Appendix table 3—Bank location by State[1]

State	January 1, 1960			December 31, 1986		
	Rural	Urban	Total	Rural	Urban	Total
			Number			
Alabama	179	58	237	156	73	229
Alaska	11	2	13	6	9	15
Arizona	3	5	8	8	45	53
Arkansas	200	31	231	206	50	256
California	21	89	110	32	439	471
Colorado	109	52	161	157	313	470
Connecticut	23	40	63	11	49	60
Delaware	12	7	19	7	23	30
District of Columbia	0	12	12	0	19	19
Florida	114	174	288	72	325	397
Georgia	292	65	357	253	114	367
Hawaii	0	6	6	3	19	22
Idaho	29	3	32	18	6	24
Illinois	530	419	949	540	677	1,217
Indiana	297	147	444	223	133	356
Iowa	546	86	632	499	114	613
Kansas	509	76	585	481	130	611
Kentucky	294	54	348	255	76	331
Louisiana	138	48	186	162	135	297
Maine	39	9	48	14	8	22
Maryland	76	63	139	25	66	91
Massachusetts	50	114	164	20	80	100
Michigan	242	139	381	175	169	344
Minnesota	547	131	678	477	255	732
Mississippi	178	13	191	123	18	141
Missouri	434	174	608	402	207	609
Montana	103	12	115	146	23	169
Nebraska	358	30	388	373	64	437
Nevada	2	5	7	5	13	18
New Hampshire	58	10	68	26	25	51
New Jersey	62	193	255	0	114	114
New Mexico	49	3	52	79	15	94
New York	197	204	401	54	142	196
North Carolina	151	40	191	30	35	65
North Dakota	140	13	153	143	33	176
Ohio	341	246	587	162	140	302
Oklahoma	298	83	381	312	207	519
Oregon	30	21	51	26	33	59
Pennsylvania	317	394	711	107	195	302
Rhode Island	1	7	8	2	12	14
South Carolina	110	28	138	41	30	71
South Dakota	158	15	173	121	12	133
Tennessee	248	42	290	193	90	283
Texas	585	381	966	684	1,276	1,960
Utah	21	25	46	16	44	60
Vermont	55	1	56	20	5	25
Virginia	238	71	309	97	73	170
Washington	50	35	85	37	56	93
West Virginia	135	46	181	151	61	212
Wisconsin	388	164	552	324	242	566
Wyoming	49	4	53	85	21	106
Total	9,017	4,090	13,107	7,559	6,513	14,072

[1] Rural or urban location is determined by whether the bank's headquarters is in a Metropolitan Statistical Area (MSA). The rural/urban division of counties varies over time as new MSA's are designated. The table applies definitions in effect in 1960 and 1986, respectively.

Source: (*13*).

Appendix table 4—Dates of change in State bank branching legislation

Unit banking: Colorado, Montana, Wyoming.

Very limited branching: Georgia (less limited in 1975 for populous, contiguous counties), Illinois (unit before 1982), Kentucky, Louisiana, Missouri, Oklahoma (unit until 1983), Texas (unit until 1987, holding companies can consolidate at the county level), Wisconsin (before 1982, only in a town with no banks).

Less limited branching: Arkansas (unit until 1973; very limited 1973-94), Indiana (very limited until 1985; statewide by merger in 1989), Iowa (unit before 1972), Minnesota (unit until 1980; very limited branching before 1987), New Mexico.

Statewide branching by merger: Alabama (very limited before 1981; county option for de novo branching within a county), Florida (unit before 1977; limited until 1981), Kansas (unit until 1987), Nebraska (unit until 1983; very limited before 1985), North Dakota (unit until 1987), South Dakota, Tennessee (very limited until 1985, after which holding companies can convert affiliates to branches), Virginia (less limited de novo branching in 1978).

Statewide branching: Alaska, Arizona, California, Connecticut, Delaware, District of Columbia, Hawaii, Idaho, Maine, Maryland, Massachusetts (limited until 1984), Michigan (very limited before 1987; holding companies can convert affiliates to branches in 1987; statewide in 1988), Mississippi (less limited until 1986; statewide by merger 1986-89; only State that still prohibits multibank holding companies), Nevada, New Hampshire (very limited until 1979; less limited 1979-87), New Jersey, New York (less limited until 1976), North Carolina, Ohio (very limited before 1979; less limited 1979-89), Oregon, Pennsylvania (less limited before 1990), Rhode Island, South Carolina, Utah, Vermont, Washington (closer to statewide by merger before 1985), West Virginia (unit before 1982; very limited 1982-87; less limited 1987-91).

Note: States are grouped according to legislation on the books, but not yet in effect in some cases. Information in parentheses indicates when laws did or will take effect.

Source: (*1*, *3*).

Appendix table 5—New banks by State and year

State	1960-72	1973-76	1977-80	1981-83	1984-86	Total
			Number			
Alabama	48	30	20	10	14	122
Alaska	3	3	0	2	2	10
Arizona	19	8	14	16	19	76
Arkansas	25	8	3	4	4	44
California	165	82	104	171	83	605
Colorado	123	68	82	118	55	446
Connecticut	23	12	3	2	16	56
Delaware	2	0	2	14	13	31
District of Columbia	4	3	1	3	1	12
Florida	291	178	30	73	109	681
Georgia	69	22	2	4	23	120
Hawaii	12	2	3	1	0	18
Idaho	3	2	4	1	1	11
Illinois	224	80	40	17	12	373
Indiana	12	12	5	1	2	32
Iowa	23	2	2	3	12	42
Kansas	36	11	9	6	29	91
Kentucky	12	7	4	4	5	32
Louisiana	55	18	17	20	26	136
Maine	11	3	0	0	2	16
Maryland	19	7	3	4	6	39
Massachusetts	34	6	2	6	6	54
Michigan	26	35	20	8	6	95
Minnesota	54	16	13	7	7	97
Mississippi	16	21	6	2	1	46
Missouri	68	38	19	22	24	171
Montana	33	11	8	4	4	60
Nebraska	33	12	22	6	7	80
Nevada	2	1	5	6	2	16
New Hampshire	15	6	4	4	5	34
New Jersey	78	33	4	3	13	131
New Mexico	22	11	7	7	7	54
New York	33	17	11	9	38	108
North Carolina	13	17	2	8	10	50
North Dakota	17	2	10	3	0	32
Ohio	23	11	7	10	8	59
Oklahoma	61	35	29	34	37	196
Oregon	16	6	40	15	1	78
Pennsylvania	11	3	1	3	10	28
Rhode Island	15	3	1	2	3	24
South Carolina	14	7	2	1	9	33
South Dakota	6	3	2	2	5	18
Tennessee	29	34	10	7	10	90
Texas	287	139	113	280	313	1,132
Utah	23	22	28	6	6	85
Vermont	0	0	2	0	0	2
Virginia	75	44	16	9	18	162
Washington	51	15	23	8	8	105
West Virginia	27	18	16	8	5	74
Wisconsin	73	24	15	8	7	127
Wyoming	18	7	25	10	12	72
Total	2,352	1,155	811	972	1,016	6,306

Source: (*13*).

Appendix table 6—Failed banks: Type, location, and year of failure, by State

State	Type[1]		Location		1983	1984	1985	1986	January-July 1987	Total
	Agricultural	Nonagricultural	Rural	Urban						
					Number					
Alabama	2	5	6	1	1	1	2	1	2	7
Alaska	0	1	0	1	0	0	0	1	0	1
Arizona	0	0	0	0	0	0	0	0	0	0
Arkansas	3	1	3	1	1	2	1	0	0	4
California	1	28	1	28	5	6	7	8	3	29
Colorado	6	17	10	13	1	2	6	7	7	23
Connecticut	0	0	0	0	0	0	0	0	0	0
Delaware	0	0	0	0	0	0	0	0	0	0
District of Columbia	0	0	0	0	0	0	0	0	0	0
Florida	0	8	0	8	0	2	2	3	1	8
Georgia	0	0	0	0	0	0	0	0	0	0
Hawaii	0	0	0	0	0	0	0	0	0	0
Idaho	1	0	1	0	0	0	0	1	0	1
Illinois	8	9	8	9	6	6	2	1	2	17
Indiana	4	3	3	4	0	2	1	1	3	7
Iowa	26	2	26	2	0	3	11	10	4	28
Kansas	32	8	32	8	1	7	13	16	3	40
Kentucky	2	2	2	2	1	1	0	2	0	4
Louisiana	3	14	8	9	0	1	0	9	7	17
Maine	0	0	0	0	0	0	0	0	0	0
Maryland	0	0	0	0	0	0	0	0	0	0
Massachusetts	0	1	1	0	0	0	0	0	1	1
Michigan	0	1	1	0	0	1	0	0	0	1
Minnesota	18	4	19	3	1	4	6	5	6	22
Mississippi	0	2	1	1	0	1	0	0	1	2
Missouri	21	6	22	5	1	2	9	10	5	27
Montana	3	2	5	0	1	0	0	1	3	5
Nebraska	25	0	24	1	1	5	13	6	0	25
Nevada	0	1	0	1	1	0	0	0	0	1
New Hampshire	0	0	0	0	0	0	0	0	0	0
New Jersey	0	1	0	1	1	0	0	0	0	1
New Mexico	1	4	4	1	0	0	3	2	0	5
New York	0	3	0	3	0	0	2	0	1	3
North Carolina	0	0	0	0	0	0	0	0	0	0
North Dakota	1	0	1	0	0	0	0	0	1	1
Ohio	0	1	0	1	0	0	0	0	1	1
Oklahoma	23	28	27	24	1	5	13	17	15	51
Oregon	3	10	5	8	4	5	3	1	0	13
Pennsylvania	0	0	0	0	0	0	0	0	0	0
Rhode Island	0	0	0	0	0	0	0	0	0	0
South Carolina	0	0	0	0	0	0	0	0	0	0
South Dakota	3	1	2	2	1	1	0	1	1	4
Tennessee	3	28	17	14	12	11	5	3	0	31
Texas	19	59	29	49	3	6	12	26	31	78
Utah	2	5	2	5	0	1	1	3	2	7
Vermont	0	0	0	0	0	0	0	0	0	0
Virginia	0	0	0	0	0	0	0	0	0	0
Washington	1	0	1	0	0	0	0	1	0	1
West Virginia	0	1	1	0	0	1	0	0	0	1
Wisconsin	1	1	2	0	0	0	1	1	0	2
Wyoming	2	13	10	5	1	2	5	7	0	15
Total	214	270	274	210	44	78	118	144	100	484

[1] A bank is agricultural if its ratio of farm loans (production loans plus real estate loans secured by farmland) to total loans exceeds the average for all insured U.S. commercial banks. The reverse is true for nonagricultural banks.

Source: Loan data were compiled from (*14*). Failed-bank data were obtained from the Federal Deposit Insurance Corporation.

Appendix table 7—Banks absorbed as branches of other banks, by State and year

State	1972-76	1977-80	1981-83	1984-86	Total
			Number		
Alabama	4	0	51	55	110
Alaska	1	0	0	1	2
Arizona	2	0	2	1	5
Arkansas	2	1	3	4	10
California	17	25	26	22	90
Colorado	0	0	0	4	4
Connecticut	5	8	13	7	33
Delaware	1	0	2	0	3
District of Columbia	0	0	1	0	1
Florida	0	201	149	139	489
Georgia	16	9	44	53	122
Hawaii	0	0	0	0	0
Idaho	2	2	1	3	8
Illinois	0	7	8	27	42
Indiana	13	7	16	34	70
Iowa	11	4	14	24	53
Kansas	1	0	1	11	13
Kentucky	7	2	8	7	24
Louisiana	2	2	3	10	17
Maine	5	2	9	9	25
Maryland	6	14	16	6	42
Massachusetts	13	8	14	25	60
Michigan	9	4	10	25	48
Minnesota	0	1	14	23	38
Mississippi	22	12	15	19	68
Missouri	1	2	10	130	143
Montana	0	0	0	0	0
Nebraska	0	0	1	40	41
Nevada	0	1	0	0	1
New Hampshire	3	5	12	7	27
New Jersey	48	28	32	20	128
New Mexico	0	0	1	3	4
New York	69	24	16	19	128
North Carolina	19	15	17	15	66
North Dakota	0	1	0	0	1
Ohio	29	105	43	46	223
Oklahoma	0	0	1	24	25
Oregon	6	3	12	19	40
Pennsylvania	58	30	22	39	149
Rhode Island	0	0	0	1	1
South Carolina	11	7	14	7	39
South Dakota	4	6	9	13	32
Tennessee	1	5	21	57	84
Texas	1	0	1	27	29
Utah	8	14	18	12	52
Vermont	12	2	0	2	16
Virginia	26	70	48	36	180
Washington	22	6	9	11	48
West Virginia	0	0	13	23	36
Wisconsin	5	4	39	38	86
Wyoming	0	0	0	0	0
Total	462	637	759	1,098	2,956

Note: Data for this table begin June 30, 1972.
Source: (*13*).

Appendix table 8—Banks getting a new holding company number by State, location, and year

State	Location		Prior affiliation[1]							
	Rural	Urban	Independent	Holding company	1960-72	1973-76	1977-80	1981-83	1984-86	Total
					Number					
Alabama	142	105	222	25	30	50	17	67	83	247
Alaska	2	7	9	0	1	0	2	3	3	9
Arizona	2	26	23	5	3	1	2	6	16	28
Arkansas	155	55	183	27	16	3	15	75	101	210
California	6	176	163	19	38	8	14	88	34	182
Colorado	165	310	333	142	117	57	79	117	105	475
Connecticut	4	46	40	10	11	5	7	7	20	50
Delaware	6	14	12	8	1	1	1	13	4	20
District of Columbia	0	23	11	12	0	5	1	9	8	23
Florida	135	775	609	301	262	200	82	182	184	910
Georgia	222	149	281	90	16	11	64	124	156	371
Hawaii	0	9	9	0	2	2	3	1	1	9
Idaho	9	4	12	1	2	3	2	5	1	13
Illinois	355	730	892	193	121	54	129	387	394	1,085
Indiana	195	158	293	60	20	8	22	104	199	353
Iowa	468	117	507	78	142	71	128	151	93	585
Kansas	411	139	482	68	102	78	132	144	94	550
Kentucky	199	73	238	34	9	8	21	102	132	272
Louisiana	106	118	196	28	15	4	17	101	87	224
Maine	33	17	36	14	21	4	0	7	18	50
Maryland	19	52	52	19	16	10	7	20	18	71
Massachusetts	33	116	116	33	44	37	15	28	25	149
Michigan	152	192	239	105	37	88	63	78	78	344
Minnesota	375	181	494	62	122	33	111	179	111	556
Mississippi	70	14	82	2	4	1	10	49	20	84
Missouri	411	358	576	193	160	124	136	163	186	769
Montana	100	11	97	14	31	6	11	45	18	111
Nebraska	359	62	368	53	108	64	105	74	70	421
Nevada	0	5	5	0	1	0	0	2	2	5
New Hampshire	31	25	52	4	7	7	9	12	21	56
New Jersey	4	145	136	13	48	15	7	34	45	149
New Mexico	66	15	69	12	22	4	9	26	20	81
New York	50	140	160	30	73	41	16	25	35	190
North Carolina	13	17	29	1	10	3	0	11	6	30
North Dakota	104	20	104	20	23	9	30	35	27	124
Ohio	137	178	267	48	96	48	38	63	70	315
Oklahoma	270	189	391	68	47	43	123	158	88	459
Oregon	11	22	31	2	4	1	6	16	6	33
Pennsylvania	64	148	180	32	23	3	4	82	100	212
Rhode Island	2	15	14	3	11	0	0	2	4	17
South Carolina	18	25	40	3	7	1	0	10	25	43
South Dakota	90	5	86	9	25	8	11	36	15	95
Tennessee	167	109	254	22	30	34	17	107	88	276
Texas	497	1,031	1,211	317	169	172	274	517	396	1,528
Utah	5	27	29	3	8	5	8	6	5	32
Vermont	18	6	22	2	1	1	0	11	11	24
Virginia	113	127	185	55	94	41	49	24	32	240
Washington	10	37	42	5	2	1	2	25	17	47
West Virginia	78	45	114	9	5	4	0	30	84	123
Wisconsin	251	269	433	87	111	31	84	126	168	520
Wyoming	82	18	81	19	29	12	22	30	7	100
Total	6,215	6,655	10,510	2,360	2,297	1,420	1,905	3,717	3,531	12,870

[1] Prior affiliation is independent if the bank was not previously part of a holding company, and holding company if the bank was already an affiliate of either a one-bank or multibank holding company. Some banks appear several times because they had more than one holding company number change. This table does not reflect cases where banks went from holding company affiliation back to independent status.

Source: (*13*).

Appendix table 9—Interstate multibank holding companies, by State and location, December 31, 1986

State	Unadjusted interstate						Adjusted interstate[1]								
	Total banks			Total branches[2]			Total banks			Total branches[2]			Total assets[3]		
	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total
	Number												Million dollars		
Alabama	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alaska	1	2	3	4	8	12	1	2	3	4	8	12	225	522	747
Arizona	0	7	7	0	256	256	0	7	7	0	256	256	0	8,413	8,413
Arkansas	1	1	2	0	12	12	1	1	2	0	12	12	10	486	497
California	0	11	11	0	2,305	2,305	0	8	8	0	2,304	2,304	0	172,573	172,573
Colorado	6	47	53	4	17	21	6	47	53	4	17	21	278	7,644	7,922
Connecticut	2	9	11	10	435	445	2	9	11	10	435	445	338	23,073	23,411
Delaware	3	21	24	0	66	66	0	8	8	0	31	31	0	12,880	12,880
District of Columbia	0	7	7	0	73	73	0	7	7	0	73	73	0	4,912	4,912
Florida	8	50	58	21	835	856	8	34	42	21	834	855	865	33,275	34,139
Georgia	8	18	26	32	518	550	8	18	26	32	518	550	1,041	27,418	28,458
Hawaii	0	1	1	0	14	14	0	1	1	0	14	14	0	605	605
Idaho	0	3	3	0	187	187	0	3	3	0	187	187	0	5,328	5,328
Illinois	8	29	37	6	38	44	8	8	16	6	10	16	713	8,719	9,431
Indiana	5	10	15	15	74	89	5	10	15	15	74	89	490	2,051	2,542
Iowa	8	5	13	6	21	27	8	5	13	6	21	27	567	1,864	2,430
Kansas	2	0	2	2	0	2	2	0	2	2	0	2	85	0	85
Kentucky	5	16	21	20	138	158	4	12	16	11	77	88	315	5,556	5,871
Louisiana	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maine	2	7	9	43	282	325	2	7	9	43	282	325	703	4,561	5,264
Maryland	1	12	13	4	666	670	1	7	8	4	160	164	64	5,374	5,438
Massachusetts	3	17	20	14	429	443	3	14	17	14	423	437	409	46,955	47,365
Michigan	35	75	110	146	1,091	1,237	23	18	41	82	213	295	1,473	5,651	7,124
Minnesota	55	47	102	40	78	118	55	47	102	40	78	118	3,558	31,326	34,884
Mississippi	0	1	1	0	78	78	0	0	0	0	0	0	0	0	0
Missouri	26	35	61	29	150	179	16	23	39	16	73	89	902	8,402	9,304
Montana	18	7	25	9	7	16	18	7	25	9	7	16	1,700	1,252	2,952
Nebraska	3	5	8	1	24	25	3	3	6	1	24	25	84	1,613	1,696
Nevada	0	3	3	0	77	77	0	2	2	0	77	77	0	3,311	3,311
New Hampshire	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
New Jersey	0	16	16	0	742	742	0	0	0	0	0	0	0	0	0
New Mexico	3	1	4	14	17	31	3	1	4	14	17	31	432	584	1,017
New York	2	29	31	74	2,427	2,501	2	25	27	74	2,426	2,500	1,504	557,314	558,818
North Carolina	2	4	6	212	787	999	2	4	6	212	787	999	3,398	41,160	44,558
North Dakota	24	8	32	26	13	39	24	8	32	26	13	39	1,365	1,114	2,479
Ohio	20	39	59	86	1,425	1,511	17	32	49	65	985	1,050	2,230	39,496	41,726
Oklahoma	1	1	2	0	4	4	1	1	2	0	4	4	6	1,380	1,386
Oregon	1	4	5	2	261	263	1	4	5	2	261	263	48	7,121	7,168
Pennsylvania	2	11	13	73	713	786	1	3	4	39	251	290	857	30,442	31,300
Rhode Island	0	4	4	0	100	100	0	3	3	0	100	100	0	10,723	10,723
South Carolina	2	3	5	1	208	209	1	3	4	1	208	209	185	4,285	4,470
South Dakota	1	5	6	0	67	67	1	2	3	0	67	67	26	2,967	2,994
Tennessee	0	8	8	0	148	148	0	8	8	0	148	148	0	6,618	6,618
Texas	25	280	305	3	119	122	0	0	0	0	0	0	0	0	0
Utah	0	6	6	0	208	208	0	6	6	0	208	208	0	7,369	7,369
Vermont	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Virginia	11	21	32	55	1,041	1,096	11	20	31	55	1,041	1,096	1,207	35,907	37,114
Washington	3	3	6	7	406	413	3	3	6	7	406	413	254	21,693	21,947
West Virginia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wisconsin	20	20	40	23	46	69	20	20	40	23	46	69	1,046	6,009	7,056
Wyoming	3	1	4	0	0	0	3	1	4	0	0	0	257	282	539
Total	320	911	1,231	982	16,611	17,593	264	452	716	838	13,176	14,014	26,638	1,198,227	1,224,865

[1] "Adjusted" data reflect the subtraction of credit card banks and other banks that apparently provide less than full service. [2] Branch locations (rural or urban) are assumed to match the headquarters office. Thus, these counts are inaccurate. [3] Asset data are aggregated at the headquarters location.

Source: (14).

Appendix table 10—Share of rural banking offices owned by urban-based banks, multibank holding companies, and bank organizations, by State, June 30, 1986

Branching law/State	Count of rural offices	Share of rural bank offices controlled by–		
		Banks with urban headquarters	Urban-based multibank holding companies	Urban-based bank organizations
	Number	*Percent*		
Unit banking	2,045	.3	9.7	9.9
Colorado	199	.5	18.6	18.6
Kansas	592	.2	2.9	3.0
Montana	163	.0	14.7	14.7
North Dakota	238	1.3	13.0	13.9
Texas	751	.1	11.6	11.6
Wyoming	102	0	2.9	2.9
Very limited branching	6,306	3.0	14.1	14.6
Arkansas[1]	482	.2	3.1	3.1
Georgia	589	11.4	21.7	22.1
Illinois[1]	791	.5	5.4	5.7
Kentucky	652	0	5.1	5.1
Louisiana	469	2.3	1.3	3.4
Michigan	698	10.3	42.4	43.8
Minnesota[1]	630	.2	12.1	12.2
Missouri	692	1.0	21.4	21.4
Oklahoma[1]	422	.7	1.9	2.6
West Virginia[1]	291	1.4	9.6	10.3
Wisconsin[1]	590	2.9	18.0	18.3
Less limited branching	3,250	12.2	18.2	21.4
Indiana[1]	686	1.0	3.1	3.9
Iowa[1]	852	1.2	4.8	5.8
New Hampshire[1]	124	16.1	31.5	33.1
New Mexico	248	0	8.5	8.5
Ohio[1]	720	30.4	47.4	50.1
Pennsylvania	620	22.6	20.6	31.5
Statewide (by merger)	2,698	22.6	29.3	32.2
Alabama[1]	406	23.9	33.3	33.7
Florida[1]	303	31.0	50.8	62.7
Nebraska[1]	495	3.6	3.2	3.8
South Dakota	269	23.0	21.2	23.8
Tennessee[1]	586	8.9	14.0	18.3
Virginia	639	44.8	54.3	55.1
Statewide branching	4,756	52.5	36.7	55.6
Alaska	85	67.1	14.1	75.3
Arizona	201	88.6	24.9	88.6
California	287	68.6	49.1	70.7
Connecticut	60	58.3	65.0	65.0
Delaware	69	55.1	24.6	56.5
District of Columbia[2]	0	0	0	0
Hawaii	78	92.3	65.4	92.3
Idaho	247	63.2	62.8	63.2
Maine	222	60.4	52.7	54.1
Maryland	157	41.4	36.3	64.3
Massachusetts[1]	80	37.5	72.5	73.8
Mississippi[1]	671	12.5	0	12.5
Nevada	57	78.9	29.8	78.9
New Jersey[1, 2]	0	0	0	0
New York[1]	474	53.2	63.7	66.5
North Carolina	904	54.5	32.6	54.5
Oregon	256	57.0	50.4	59.0
Rhode Island	21	57.1	57.1	57.1
South Carolina	358	58.9	19.8	58.9
Utah	128	78.1	66.4	80.5
Vermont	169	29.6	9.5	31.4
Washington[1]	232	60.3	52.2	62.9
Total	19,055	19.4	22.1	28.0

[1] Indicates States that have liberalized their branching restrictions since 1980. [2] The District of Columbia and New Jersey are completely urban.

Source: (10).

Appendix table 11—Banks open as of December 31, 1986, by State and year established

State	Pre-1973[1]	1973-76	1977-80	1981-83	1984-86	Total
			Number			
Alabama	179	14	12	9	15	229
Alaska	10	2	0	1	2	15
Arizona	11	2	6	15	19	53
Arkansas	237	8	3	4	4	256
California	103	50	90	152	76	471
Colorado	248	39	43	86	54	470
Connecticut	34	6	3	2	15	60
Delaware	10	0	1	9	10	30
District of Columbia	12	2	1	3	1	19
Florida	187	57	19	38	96	397
Georgia	319	15	2	3	28	367
Hawaii	17	2	2	1	0	22
Idaho	17	1	4	1	1	24
Illinois	1,093	73	32	13	6	1,217
Indiana	344	8	2	1	1	356
Iowa	594	2	2	3	12	613
Kansas	558	10	9	6	28	611
Kentucky	313	6	4	3	5	331
Louisiana	223	14	17	19	24	297
Maine	19	2	0	0	1	22
Maryland	76	2	4	3	6	91
Massachusetts	89	2	2	2	5	100
Michigan	290	27	18	5	4	344
Minnesota	693	15	12	6	6	732
Mississippi	127	12	1	0	1	141
Missouri	545	17	13	14	20	609
Montana	144	9	8	4	4	169
Nebraska	397	11	17	5	7	437
Nevada	7	1	3	5	2	18
New Hampshire	42	2	2	2	3	51
New Jersey	90	14	2	1	7	114
New Mexico	68	11	5	3	7	94
New York	158	7	7	4	20	196
North Carolina	41	5	2	7	10	65
North Dakota	165	2	8	1	0	176
Ohio	283	4	4	5	6	302
Oklahoma	396	29	26	32	36	519
Oregon	30	1	19	8	1	59
Pennsylvania	291	2	0	2	7	302
Rhode Island	13	0	0	0	1	14
South Carolina	57	3	2	0	9	71
South Dakota	124	1	2	2	4	133
Tennessee	239	23	8	4	9	283
Texas	1,153	132	107	265	303	1,960
Utah	31	9	12	5	3	60
Vermont	24	0	1	0	0	25
Virginia	110	23	10	9	18	170
Washington	48	12	20	7	6	93
West Virginia	181	10	10	7	4	212
Wisconsin	534	11	12	5	4	566
Wyoming	62	6	19	8	11	106
Total	11,036	716	608	790	922	14,072

[1] The pre-1973 group includes 14 banks of unknown establishment year.

Source: (13).

* U.S. Government Printing Office : 1990 : 261-855/20141

ERS-NASS Video Tapes

ERS: Economic Research for American Agriculture

An historical account of the role of economic research in the success of American agriculture.

16 1/2 minutes.
Order No. VT001 $15.00

Today and Tomorrow

The U.S. Department of Agriculture's Outlook program analyzes the current situation for U.S. and world crops, and provides a forecast of future supplies and prices. "Today and Tomorrow" is an overview of the USDA Outlook program from its beginning in the 1920's, to the current comprehensive program of research and analysis.

23 minutes.
Order No. VT002 $15.00

The Need To Know

Begins with a futuristic "what if?" opening, and then proceeds to outline the history, significance, and contributions of agricultural statistics and USDA's National Agricultural Statistics Service.

23 minutes.
Order No. VT003 $15.00

Your Hometown

"Your Hometown" is an informative and entertaining look at small town rural America. Originally seen on public television stations nationwide, and narrated by James Whitmore, the program focuses on three rural communities where citizens use innovative thinking and teamwork to revitalize their own towns.

1 hour.
Order No. VT004 $15.00

Alternative Agriculture: Growing Concerns

Can U.S. farmers produce at a profit while practicing low-input, sustainable agriculture (LISA)? "Growing Concerns" investigates the benefits and drawbacks of LISA. An excellent overview, this documentary was originally seen as a five-part series on national television.

19 minutes.
Order No. VT005 $15.00

Ethanol: Economic and Policy Tradeoffs

Ethanol can contribute to the national goals of energy security, a clean environment, and a healthy economy, but there are tradeoffs.

25 minutes.
Order No. VT006 $15.00

To order, call toll free, 1-800-999-6779 (8:30-5:00 ET in the U.S. and Canada) or write : ERS-NASS, P.O. Box 1608, Rockville, MD 20849-1608

U.S. Department of Agriculture
Economic Research Service
1301 New York Avenue, NW.
Washington, DC 20005-4788

END

U.S. Dept. of Education

Office of Education
Research and
Improvement (OERI)

ERIC

Date Filmed

March 29, 1991